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The University Journal

Devoted to the Interests of the University and of Education in the State of Nebraska.

Vol. V. LINCOLN, NEBRASKA, NOVEMBER, 1908. No. 2.

THE ABUSE OF NOTE TAKING

Charles E. Bessey

Why do we take notes when we listen to a college lecture? Why do we require our pupils to take notes of our lectures? We answer, of course, that we take notes in order that we may not forget what the professor says, and we require our pupils to take notes of what we say in order that they may remember what we have told them. But have we not carried this note taking quite too far? Is it necessary in order to remember what we hear that we must put the lecturer's words into writing? Is it really essential that our pupils should first write down everything we say? Why should they not remember "by first intention" as the surgeons say, rather than after the suppurative process of editing and rewriting their imperfect notes? And what is it that the pupil finally learns after he has neatly copied his notes in final form in his lecture note-book? I have looked over many such note-books, and I shudder when I think of what I am alleged to have said in my lectures. No doubt there are some things in some lectures that the student can not remember without writing down, but I hold that any matter that cannot be presented in such form that it can be remembered as heard should not be given in lecture form. We have confused the subject-matter of the text-book with that of the lecture. Some teachers seem quite unaware of this difference, and try to present details through lectures which should be attempted only by means of the printed page. Here I take it is one of the serious faults in our educational practice. We have not clearly separated the text-book from the lecture. I have heard of teachers who copied page after page of some text-book and then read these to their classes. Some teachers prepare their lectures with such verbal accuracy that they require their pupils to make literal copies, and to make this possible they slowly dictate page after page. Such a waste of time is rarely justifiable. As long as printing is so cheap it should not often be necessary for a teacher to take his time and that of his pupils in this slow method of making a text-book. It would be far better for him to use even that slovenly and inky duplicating device called the "mimeograph." In fact any duplication of his lectures would be better than to require his pupils to perform such profitless drudgery as that of making voluminous notes from dictations.

What then is the place of the lecture in a course of study if it should not be used for the communication of details? In discussing this I want first of all to say emphatically that I hold that no lecture should contain details that are difficult for the listener to remember. If now the lecture is not to contain details, what should be its nature? In the first place the details should be given in a carefully and rather compactly written text-book, or syllabus of the subject. Here should be found all of those details which have to be considered again and again in order to be fixed in the mind. Then the lecture should light up and illumine the subject. The dry and dusty text should spring into living foliage and beautiful florescence under the refreshing showers of the interesting lecture. The lecturer should add the enthusiasm of the scholar to his subject. He should be able to give them something of his point of view. He should be able in eloquent and stirring words to make them see his subject as he sees it. For this his pupils must listen to him with their minds alert. His burning enthusiasm

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will be lost upon them if they are mere writing machines putting his words (but no more) down in their note-books. They lose his enthusiasm for they cannot take the time to consider that, and he all too soon omits it and confines himself to a dry recitation of facts and details.

Oh, my brethren who have the privilege of standing before your classes of eager young people who ask you for helpful nourishing bread, give them what they ask, and be thankful that you have the opportunity. But do not give them stones for bread. When you can have their ears for the asking fill them with the enthusiasm you have for your chosen subject, and provide that the heavier and more solid matters be given them not in your lectures but in some well-chosen text-book. If there is no such text-book, do as the German professors do, make one.

Don't try to give the details of your subject by means of lectures. Don't plan your lectures so that they have no value except as they are taken down more or less literally in "lecture notes" by your pupils. Give your subject by the use of a text-book, or other printed matter, and reserve your lectures for illuminating the subject. Encourage your pupils to listen to you with such attention that they need not take notes. Consider that lecture course the most successful that puts more into the pupil's head, and less into his note-books. In my opinion a lecture course is successful inversely in proportion to the size of the note-books which it requires.

THE MISSOURI RIVER

(A Study for Seventh and Eighth Grade Students.)

By N. A. Bengtson

As Nebraskans, we boast of having in abundance some of the most important resources of our country. We "point with pride" to our rich soil, our invigorating climate, and our prosperous and intelligent citizenship, and ask in defiant tones, "Where else will you find the peer of these?" While still under the influence of this pleasant soliloquy, some one, perhaps a New Englander, breaks in with the question, "How about your waterways?" Then it is that the average Nebraskan has but little to say. He has heard of the turbid Missouri and the sandy Platte, but knows practically nothing about them, hence remains painfully silent. It seems therefore that we are justified in making a plea for a more definite study of our drainage conditions. Do we realize that we have as a part of Nebraska, a stream that is being studied by men in many of the countries of the world? On account of its turbid waters it is called the "Big Muddy," but do we all know what makes it such? Where does its turbidity begin? Probably the majority of grammar grade students in Nebraska would have to answer "No" to all of these questions. Many people are now demanding that this river should be used for transportation. Should not all the boys and girls, especially of Nebraska, study this stream as carefully as possible? We own a good-sized share in this great natural resource. Let us know something about it.

The first thing to do is to obtain some of the articles written upon the subject. You boys and girls in the schools should learn to make good use of government publications issued for the benefit of all the people. For the study of the Missouri river let me refer you to just two articles that every one of you should have. The first is a collection of short papers written for the people of Nebraska on "The Control, Development, and Utilization of the Missouri River and its Tributaries." Now, don't be frightened by these terms. They have meaning and students of your age are able to understand all necessary words such as these. The papers referred to were published in the Report of the Nebraska State Board of Agriculture for 1908. This report is free to anyone, including grade students, who sends a request for it to Secretary W. R. Mellor,

Last of Mr. Brundson's 240-acre Farm near Peru, washed away.

Lincoln, Nebraska. Secondly, let me refer you to an article published by the national government. It tells you about the Missouri valley in northeastern Nebraska. It is a little book, well illustrated with photographs and drawings, and you can have it for the asking. Write to Hon. George Otis Smith, Director of the United States Geological Survey, Washington, D. C., for Water Supply Paper Number 215.

The books mentioned will be sent to your name if you wish them. Then later on we will tell you how you can make other valuable additions to your library upon subjects of common interest. The different departments of the state and national governments publish many articles upon subjects in which the school boys and girls should be interested.

You find below an outline for a study of the Missouri river. There you notice many topics not discussed in your text books. At first glance

you probably think that the outline is hard. Some of you may possibly even think it too hard, but it isn't. The references given will furnish you the material needed for studying all the topics indicated. Send for them and read them, and you will get the facts called for. Then write your story of the Missouri. If you will do so and send it to the Department of Geography, University of Nebraska, we shall be glad to read it, and probably publish the one considered best.

The Missouri River.

I. Definition of a river.
  1. Is all of a river in its channel?
  2. Importance of underground flow.
  3. Significance of drainage basin.
  4. Sources, meaning of.

II. Drainage basin.
  1. Extent,—north and south, east and west.
  2. Area.
    1. Square miles.
    2. States included.
  3. Important tributaries.
    1. Change of altitude from headwaters to mouth.
    2. Sources.
  4. Differences in structures.
    1. Mountains.
    2. Foothills.
    3. Plains.
    4. Relation to run-off and hence to floods.
      1. Granites and other rocks of similar structure.
      2. Bad Land clays.
      3. Sand hills.
      4. Loess plains.
  5. Rainfall and evaporation.
    1. Regions of greatest rainfall.
    2. Regions of lowest rainfall.
    3. Effect of mountains.
    4. Seasons of maximum rainfall.
      1. Effect on floods.
    5. Relation to forests.
  6. Forests.
    1. Present areas.
    2. Relation to altitude.
    3. Effect on floods.
      1. Explain how forests may regulate the flow of the stream.
  7. Mountain tributaries.
    1. Headwaters,—where, sources of supply.
    2. Slope.
    3. Relation to waterpower.
    4. Dry valleys.
  8. Overloaded tributaries.
    1. Work of the Platte in the mountains.
      1. Slope.
      2. Source of water.
    2. Loss of ability to carry its load.
      1. Decrease of volume.
        1. Irrigation.
        2. Evaporation.
        3. Greater underflow and henec less surface volume.
    3. Causes of turbidity in the Missouri.
      1. Yellowstone River.
      2. Cheyenne River.
      3. White River.

III. Characteristics of the Missouri.
  1. Place where term is first used.
    1. Three Forks, Montana.
      1. Names of streams uniting to form the Missouri.
      2. Elevation of junction.
      3. Characteristics of valley.
      4. Nature of waters.
  2. Describe the first 158 miles of the course.
    3. Is the river navigable?
    2. Fall of stream.
    3. Width of valley.
  3. Swiftest portion of the river's course.
    1. Where found?
    2. Character of valley.
    3. Velocity, fall per mile.
    4. Relation to navigation.
  4. The navigable Missouri.
    1. Head of navigation,—where? why?
    2. Description of flood plain and course from Great Falls, Montana, to Yankton, South Dakota. Note uniformity.
    3. Study change in flood plain at Yankton.
    4. Fall of stream at different places.
  5. Cut banks.
    1. Meaning of term.
    2. What is a meander?
    3. Importance along northeast Nebraska.
  6. Accretion land.
    1. Rate of growth in some places.
    2. Agricultural relations.
  7. Significance of changes in course of channel.
    1. Formation of "cutoffs."
    2. Relations to farms and railroads.
      See maps on pp. 363 and 364, Report of Bd. of Agr., '08.

IV. Navigation on the Missouri.
  1. Early avenues of transportation.
    1. Trail.
    2. Wagon road.
  2. Earliest Missouri navigation.
  3. Early commerce and types of boats.
    1. Indian and his canoe.
    2. French trappers.
    3. Relation to fur trade and types of boats.
    4. The keel boat.
      1. Description and manner of use.
      2. Early navigation,—Manuel Lisa, Lewis and Clark, J. J. Astor, Pike.
    5. The steam boat.
      1. Date of introduction.
      2. Period of greatest activity.
      3. Causes of decline.
  4. Present problems.
    1. Clearing of channel.
    2. Cost of power.
    3. Rapidity of transit.
    4. Railway competition.

THE SCHOOL OF PHARMACY

Rufus A. Lyman

Pharmaceutical education has been neglected in the United States. With two exceptions the laws governing the practice of pharmacy are very lax. A considerable proportion of the medical profession have fallen into the habit of prescribing proprietary medicines, and this has driven the pharmacist to the dispensing of nostrums. These facts are very largely responsible for bringing pharmacists as a body into disfavor with the

better element in the medical profession and with the public.

Pharmacy is a profession which concerns the public health as vitally as does medicine. Opportunities for work in the private practice of the profession, in the industrial and manufacturing pursuits, and in the public service are unlimited. The movement of reform now in progress in the medical profession and the passage of local and national pure food and drug laws, make it evident to those who are awake and ambitious that a new era for pharmacy has begun.

The leaders in the pharmaceutical profession of the country have organized local and national associations and are putting forth every effort to elevate their calling and improve their profession and practice.

The awakening in both the medical and the pharmaceutical professions as to the manufacture, dispensing and sale of drugs, poisons and synthetics, together with the passage of the Food and Drug Act, has placed upon pharmacy, pharmaceutical chemistry and allied subject, an importance never before enjoyed. The demand for skilled pharmacists was never so great as at the present time. The training as well as the general and technical knowledge demanded of applicants for positions by pharmacists, manufacturers, and the government is rapidly increasing. Thus while positions and opportunities in pharmaceutical work are on the increase, thorough and scientific training in the fundamental subjects has become imperative.

In view of these facts the University has organized the School of Pharmacy, the object being to give a liberal and technical training, which will produce men and women of culture and attainment, fitted to strive for the highest professional ideals.

AIM AND METHOD IN NATURE STUDY

Robert H. Wolcott

"Study nature, not books." Agassiz's admonition has had a profound influence upon teaching methods in this country, but we still need occasionally to have the admonition repeated. I am a firm believer myself in nature study for every one. I would not contend necessarily that a course in nature study be a part of the curriculum of every school, but I would insist upon the desirability of using the nature-study method so far as possible in every subject presented, and where feasible I would strongly urge the introduction of definite instruction in nature study of the right kind. The subject matter then, in my opinion, is not so much to be emphasized as the method. Nature study, as I define it, is not even the study of natural history alone, but the development of a spirit of investigation—of the habit of seeing things and trying to discover for one's self the nature of them. The object of the course or of this method of instruction when adopted in other subjects is the training of the power of individual observation and of the ability to draw correct conclusions directly from the facts observed.

The aim and method of nature study are subjects that one may think, perhaps, have been too much discussed already. We have among us in Professor Bessey one of the pioneers in the nature-study movement, the scientific work in the University is given from a nature-study point of view, and the work in the normal schools and colleges of this state is, in most cases at least, similar in manner of presentation. Only a part, however, of our teachers, come under the influence of the University or of these schools and colleges; whether or not this be the reason, the author is convinced that much nature study is itself given with no appreciation of the real aim of the subject, while many teachers are quite ignorant of the nature-study method as applied to scientific, or other, subjects of instructions. Nature study is frequently given with the sole object of interesting the pupil; no more serious aim has occurred to the teacher, and method in instruction does not exist. In other cases, the teacher appreciates the need of instruction along this line and is to be commended for this and for the enthusiasm that leads her to undertake work in nature study, but she fails to realize her aim because of lack of previous instruction in method.

We then may divide this subject into two parts, one dealing with the teaching of the children, and the other with the preparation of the teacher. It is to the latter that I wish to call particular attention.

Nature study as it is presented to the children in our schools, suffers chiefly, as said above, from lack of aim and, consequently, from improper method. The teacher takes the children into the fields or brings objects to them in the school-room, gives them in every case the name of the object, tells them a few of the interesting facts in regard to it, and perhaps points out certain economic aspects under which it presents itself to us. The child acquires some information, has his power of observation perhaps slightly developed, and in rare instances, is, by questioning, led to draw conclusions of his own, and hence has his judgment to a certain extent education. But too frequently instruction stops with a little drill in observation, and even if an endeavor be made to train the judgment of the pupil, it is often the case that care is not taken that the conclusions be logically drawn and be based directly upon facts observed.

The trouble is in the preparation of the teacher. So the effort of every one who is interested in furthering nature study should be to see that teachers are given a correct aim and a proper method. Opinions will differ probably as to the method, and the object of this article is to suggest at least one method which has given, in actual experience, very good results. The author has been teaching nature study for a number of years now, both in the University of Nebraska and in the University of Missouri. He began by giving a course such as is frequently given, involving field trips, in which he endeavored to show the class the more familiar animals and plants of the region and to give some interesting facts about them, to lead the students to see the significance of the geographical features presented, and at the same time to give them instruction in modelling, color work, drawing, keeping of notebooks, etc., together with suggestions as to what objects might be used, and, in a way, how they might be used in the school-room. The student was often asked questions, but they were such as the object in hand chanced to suggest and were designed chiefly to excite and maintain interest in the work. He feels sure that the members of the class had an enjoyable time and

acquired much useful information, but he is also very sure that the course did not, in his own mind, justify itself. Life is too short to permit that any time should be spent in study which simply imparts facts and does not contribute to the development of real intellectual power. After some experimentation, the following plan was hit upon and has been applied with great success. There are now presented to the class a number of carefully designed problems, beginning with those very simple in character, involving only a limited power of observation, and yielding data pointing to a most obvious and direct conclusion. From these the student is carried step by step, up to those problems which are to be solved only by very close and trained observation, and which require considerable power of analysis and careful judgment in reaching the correct conclusion. In this way the aim is to develop alike the power of observation and the ability to draw correct conclusions on the basis of facts observed. It must be said that since the writer's own work lies along biological and particularly zoological lines, the greater part of the material which is made use of is biological rather than physical. But, as has been said above, the subject-matter is not of the greatest importance. The object is to train the power of observation and judgment in the teacher, so that she can impart the same training to the pupil. It should be said that during the field trips taken, the class is made familiar with all of the various types of localities in the region covered and is given an insight into the life relations they exhibit, and it is also true that incidentally each member becames familiar with most of the common forms of animals and plants. But this is not the primary object in the course, which is really a training course in observation work, the essence of which is the use made of facts derived directly from personal observation.

In the lectures on the teaching of nature study which accompany the work just outlined, emphasis is laid upon the fact that a technical scientific knowledge on the part of the teacher is not necessary. The pupil's interest can be aroused by presenting to him common and familiar objects, about which he may be asked questions, the answer to which can only be given after the exercise of his powers of observation and also of judgment, and in this manner the chief aim of nature study can be realized. If less familiar objects are used the pupil can soon be made to see that the most interesting fact about the object is its nature, not what it is called. He will learn to investigate first the character of the thing and then to take his time about fitting a name to it. The teacher may select any objects with which she herself is familiar or she can, with the aid of a limited number of books and the assistance of specialists in different lines, gradually become familiar with the names of the objects she may make use of in her instruction, the ability which she has gained from her own course in nature study being sufficient to enable her to formulate questions which will maintain the interest of the pupil and stimulate his mental development while at the same time she is continuing to develop herself. If she be not giving instruction in nature study specifically, it is believed that the application of the nature-study method, as it has been given to her, will vivify and render more effective her teaching, no matter what the subject may be. This plan of instruction also solves the question of grading work in nature study, since grading becomes largely a matter of the breadth and difficulty of the problems presented.

Teachers who have come under such instruction as has been suggested, and who have had relatively little interest in nature at the beginning of the course, with no confidence at all in their ability either to observe or to reach a conclusion on the basis of their observation, have come at the end of the course, not only to be very good observers, but also to have considerable powers of judgment in regard to the explanation of facts observed. Moreover, they have had their interest so aroused that while before they saw nothing in their daily walks to and from the university, more than one has said afterward that she saw so much she found it hard to get to her classes in time. I feel sure that the adoption of this method of instruction in nature study in our colleges, and also in the work of our grade schools, would be of the greatest value, both from the standpoint of the teacher and of those who have the further development of the subject itself at heart.

HIGH SCHOOL DEBATING LEAGUE

M. M. Fogg

The first annual business meeting of the Nebraska High School Debating League was held on November 6 in the Temple with some forty-five schools represented by superintendent or principal. The League authorized the division of the Northern District into the Northern District (including Valentine, Ainsworth, Atkinson, O'Neill, and any other schools in that part of the state, which may join the league) and the North-Central, and directed Prof. M. M. Fogg, of the University, who was elected president, to redistrict the state so that not more than eight league schools will be in a district. In accordance with this action, the Southeastern District, which includes twelve members, will be divided, making twelve districts in all. The president was empowered to appoint the twelve district directors, who will supervise the work of the League in the several districts. Supt. H. Clyde Filley, of Albion, was elected secretary-treasurer. It was the sense of the meeting that the losing schools in the district contests should pair off to decide the second honors in the districts.

The 1908 number of the League's "Bulletin," a twenty-page pamphlet compiled by Prof. Fogg, was distributed at the meeting. The "Bulletin" contains the list of members; the constitution of the League; brief accounts of the twenty League district debates held last year, and of the High School Fete Day debate for the state championship; a page cut of the district representatives in the state championship contest; and the question for the 1908-1909 debates, and a list of sixty references to material—in books and articles—on it.

The question selected by vote of the members for the contests this year is as follows:

"Resolved, That Disputes Between Capital and Labor in the Railroad Business Should Be Settled By Boards of Arbitration with Compulsory Power."

The district contests will probably begin in December.

The forty-two members of the league on November 2, were the following:

Ainsworth—J. M. Graybiel, Supt.

Albion—H. Clyde Filley, Supt.; Myrtle Price, Prin.

Alliance—D. W. Hayes, Supt.; H. H. Reimund. Prin.

Atkinson—C. A. Mohrman, Supt.; Almeda Cockerill, Prin.

Auburn—W. W. Gallaher, Supt.; E. G. Spencer, Prin.

Beaver Crossing—G. L. McDonald, Supt.; Ester Keller, Prin.

Blair—H. H. Hahn, Supt.; A. C. Parsons, Prin.

Bloomington—V. L. Strickland, Supt.; Anna Krumback, Prin.

Central City—A. G. Smith, Supt.; Lillian Anderson, Prin.

Chadron—R. I. Elliott, Supt.; J. H. Williams, Prin.

Edgar—Albert Snare, Supt.; Mary Johnson, Prin.

Fairfield—T. A. Blakeslee, Supt.; Inez Hawkins, Prin.

Fairmont—C. R. Weeks, Supt.; Jeannette Burlingame, Prin.

Falls City—E. L. Tobie, Supt.; E. K. Hurst, Prin.

Fremont—A. H. Waterhouse, Supt.; A. R. Congdon, Prin.

Geneva—R. W. Eaton, Supt.; Grace Munson, Prin.

Gothenburg—P. M. Whitehead, Supt.; W. L. Greenslit, Prin.

Hastings—S. R. Thompson, Supt.; S. E. Clark, Prin.

Havelock—J. A. Woodard, Supt.; Maude Wilson, Prin.

Hebron—J. R. Fulk, Supt.; R. H. White, Prin.

Humboldt—R. L. Hoff, Supt.; Althea F. Berry, Prin.

Kearney—George Burgert, Supt.; Roy Cochran, Prin.

Loup City—Jas. O'Connell, Supt.; Abi Beynon, Prin.

Nebraska City—G. E. Martin, Supt.; C. Ray Gates, Prin.

North Platte—Wilson Tout, Supt.; Elmer Ringer, Prin.

Ohiowa—E. E. Monroe, Supt.; Henrietta Bankson, Prin.

O'Neill—Celia A. Gorby, Supt.; Sarah L. Doubt, Prin.

Ord—Eugene Howe, Supt.; Abbie Reynoldson, Prin.

Osceola—E. A. Boostrom, Supt.

Pawnee City—George Crocker, Supt.; Rose B. Clark, Prin.

Plattsmouth—J. W. Gamble, Supt.; W. G. Brooks, Prin.

Sidney—W. R. Pate, Supt.; E. M. Cline, Prin.

South Omaha—N. M. Graham, Supt.; P. M. Wheeler, Prin.

Stella—I. G. Wilson, Supt.; Caroline McCr ady, Prin.

Syracuse—E. E. Lackey, Supt.; Grace Sargent, Prin.

Tecumseh—Walter Kiechel, Supt.; Edith Shepherd, Prin.

Valentine—R. H. Watson, Supt.; John Mohlman, Prin.

Wahoo—C. N. Walton, Supt.; C. L. Cherry, Prin.

Weeping Water—I. N. Clark, Supt.; F. R. Galbraith, Prin.

Wymore—R. H. Graham, Supt.; J. K. Campbell, Prin.

York—W. W. Stoner, Supt.; W. B. Johns, Prin.

INTERCOLLEGIATE DEBATES, 1908.

M. M. Fogg

The University Debating Board on October 10, appointed the remaining members of the Intercollegiate Debating squad, twelve members of which were appointed last May, from which will be selected the eight members of the two teams which will represent Nebraska in the contests of the Central Debating League, on December 11. Nebraska will debate with the University of Illinois, at Lincoln, and with the University of Wisconsin at Madison. Two other universities are in the league, Minnesota and Iowa. The question for the five simultaneous debates, in which the home teams in each case will support the affirmative, is as folows: "Resolved, That American cities, should adopt a commission form of government."

Of the eighteen members of the squad, all are without experience in intercollegiate debate. Six of the eight members of last year's teams against Iowa and Minnesota either are graduated, or are staying out of college this year: W. R. King, '08 of Osceola, has entered the Harvard Law School; J. M. Swenson, '08, Omaha, is spending the year in the real estate business at Sidney, Neb.; Robert Elliott, '10, is superintendent of schools at Chadron; Martin L. Frerichs, Law, '08, Mr. Clyde C. McWhinney, '08, Law '08, are practicing law in Lincoln and Salt Lake City, respectively, and Lawrence J. Weaver, '10, is in business; R. A. Van Orsdel, Law, '10, is instructor in debating in the Lincoln High School, and instructor in mathematics in the Teachers' College High School, and Frank C. Builta, '08, is in newspaper work in Lincoln.

The members appointed at the second preliminary, when sixteen candidates appeared, were the following:

Dean Driscoll, '05, Law '11, Boise, Idaho.
A. Merlin Hare, '11, Albion.
Elmer A. Hills, '09, Sidney, Iowa.
Henry C. Hathaway, '10, Lincoln.
Samuel C. Stoner, '09, Law '11, Osceola.
Calvin H. Taylor, '04, Law '11, Union.
George W. White, '10, Salem, Ore.

The twelve men selected from the thirty-two contestants at the first preliminary in May were as follows:

Ross W. Bates, '09, Springfield.
James E. Bednar, '04, Law '10, Wymore.
Alfred E. Burr, '09, Denver, Colo.
Ben Cherrington, '11, Omaha.
Stuart P. Dobbs, '09, Beatrice.
Earl D. Mallery, '11, Alliance.
Herbert D. Potter, '10, Omaha.
John L. Rice, Law '10, McCook.
Frank J. Reinsch, '09, Denver, Colo.
Thomas P. R. Stocker, '09, Lincoln.
Joseph T. Votava, '10, Edholm.
George M. Wallace, '10, Omaha.

The judges at the first preliminary debate were Dean G. P. Costigan, Prof. M. M. Fogg and Prof. F. C. French; at the second preliminary, Prof. H. W. Caldwell, Prof. E. B. Conant, and Prof. Fogg.

NEBRASKA ATHLETICS

R. G. Clapp

Football.

1908 SCHEDULE

Sept. 26—Nebraska vs. Peru, 20-0.
Oct. 3—Nebraska vs. Doane, 48-0.
Oct. 10—Nebraska vs. Grinnell, 20-5.
Oct. 17—Nebraska vs. Minnesota, 0-0.
Oct. 31—Nebraska vs. Haskell Indians, 10-0.
Oct. 31—Nebraska vs. Iowa, 11-8.
Nov. 7—Nebraska vs. Ames, 23-17.
Nov. 14—Nebraska vs. Kansas, at Lincoln.
Nov. 21—Nebraska vs. Hastings, at Lincoln.
Nov. 26 (Thanksgiving)—Nebraska vs. Wabash, at Lincoln.
Dec. 2—Nebraska vs. Carlisle Indians, at Lincoln.

The results of the season's contests have thus far been highly satisfactory to the coaches, players and football enthusiasts. The team probably presents as strong a line, if not the strongest line ever developed by a Cornhusker eleven. In general teamwork, spirit and dash the team has few equals in Western football circles. The chief weakness appears to lie in the absence of a first-class drop and place kicker and the lack of fast open-field backs for offensive work. Two backs with the ability of Bender and Benedict in this latter respect would make the 1908 team the premier eleven of the west. The defensive work of the team is all that could be desired.

One of the greatest difficutlies experienced by coaches is the overcoming of the lassitude and apparent indifference of veteran teams, and no amount of prodding and preaching could have produced the effect upon the veteran players of Nebraska that the touchdown made by Grinnell in the first five minutes of that game produced. There was no call for the excessive criticism heaped upon the veterans in the early part of the season by the press, yet to this and to the unexpected score by the Grinnell team may be attributed the remarkable "fighting spirit" shown by the team later.

After the first score was made in the Grinnell game the visitors never got within striking distance of the Scarlet and Cream goal. The ability of the Grinnell eleven repeatedly to hold the Cornhuskers for downs was a source of considerable worry to Nebraska partisans, but it was of inestimable value to the team because it dispelled all traces of over-confidence.

The tie game at Northrop field was virtually a Cornhusker victory and the team deserves much credit for the strength and spirit which it showed in continually holding the Gophers for downs under the shadow of the Nebraska goal. During nearly the entire second half, the ball was inside the Nebraska 25-yard line—owing largely to the strong wind which repeatedly brought back the high punts of Birkner and Minor, but the Cornhuskers' stonewall was equal to the emergency, and threw back the Minnesota backs or blocked at tempted place-kicks. This game will go down in the athletic annals of the University as one of the greatest gridiron battles in her history and the best exhibition of Nebraska spirit ever shown.

The Haskell game was played in a veritable sea of mud and showed nothing except to emphasize the fact that the team is especially strong on a muddy and slipper field.

Cross-Country

The green cross-country team is developing rapidly and, barring further accidents, Nebraska should be able to present a fairly well-balanced team for the race at Chicago on November 14. The absence of star performers, to take the place of States, Havens, Alden, Davis and Heath, will seriously handicap Nebraska and, at the present time, the "dope" is more favorable to Wisconsin and Chicago than to Nebraska; however Nebraska's cross-country teams, in the past have always been a credit to the University and this year's team will be no exception.

Indoor Athletics

In accordance with the general attempt to develop Intra-University athletics the management is planning two important indoor contests, besides the usual Charter Day meet. The first of these two contests will be a big Inter-Fraternity meet on January 30, and the other—a non-Fraternity meet—will take place the following Saturday. The events in these meets will correspond as nearly as possible to the Charter Day events and the three winners of each event in the "Inter-Frat" and "Barb" contests, will compete for the University championship on Charter Day.

The formation of an Inter-Fraternity basketball league is being advocated by the basketball enthusiasts and doubtless the organization will be effected in the very near future.

Athletic Field.

A keen disappointment of the present season is the failure of the carefully laid plans of the athletic board for a new athletic field and drill ground—owing to interference from an unexpected quarter. In securing Antelope Park for the football season, the athletic board took the only course possible except the cancelling of the entire schedule. The present arrangement is undesirable in many ways, but especially so because it requires several extra hours per week which might better be spent by the players in the laboratories or class rooms, and it is hoped that the regents may see their way clear to arrange for a suitable drill ground and athletic field within a reasonable distance of the campus before another year.

THE MAILING LIST

The University Journal is sent to all county superintendents, city superintendents, high school principals, principals of schools, high school teachers and rural teachers of Nebraska. The Alumni Edition—October, December, February, April and May—is sent also to all alumni whose address is known. Affiliated members of the Alumni Association will be placed on the mailing list on their request. All persons holding certificates from schools organized by or affiliated with the University, and students who have attended the University two years, are eligible to become affiliated members.

As a matter of convenience in mailing, the Journal is sent to officials by the title of their position, rather than by name. Also the papers for high school teachers are inclosed in the package addressed to the high school principal of the larger schools and to the principal of schools in the smaller places.

It will assist greatly if all persons receiving the Journal keep the editor informed of any change in address.

The University Journal

PUBLISHED MONTHLY
By the Teachers' College of the University of Nebraska.

Entered April 13, 1906, at Lincoln, Nebraska, post-office as second-class matter, under the Act of July 16, 1894.

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The resignation of Chancellor Andrews casts a spirit of gloom over the entire University, and causes a feeling of deep regret on the part of all friends of education. The act was unexpected by all, even his most intimate associates. It was hoped that at least the present year, opened so auspiciously, might be completed before his active duties should end. This, too, was his own desire. Nothing but the positive orders of his physicians could bring him to the point where he was willing to lay aside the duties and responsibilities so faithfully and efficiently administered and to relinquish the leadership so long and so eminently maintained. Beginning January 1st Chancellor Andrews will take a year of rest in a milder climate. It is hoped that the relief thus obtained will permit many years of usefulness in his advisory capacity as chancellor emeritus, to the end that the cause of education may be further enriched by his wonderful appreciation of true values and by the fruitage of his long and varied educational career.

The free correspondence course in the *Philosophy of Education* offered to the teachers of Nebraska, by Dr. H. K. Wolfe, seems to have struck a popular chord. More than fifty teachers and superintendents are taking advantage of this opportunity. New members will be received until December 1.

All friends of public education are rejoicing over the decision of Judge L. M. Pemberton, upholding the constitutionality of the Free High School Law of 1907. It is hoped that the case will be promptly appealed to the Supreme Court, so that there may be a final determination of the principles of taxation involved. For the last twenty years school men, as well as legislators, have been trying to find a legal basis for completing our system of public schools. There has been a general feeling that the boys and girls on the farms and in the smaller towns should have the same school privileges as those in the cities. No other subject of legislation has called forth such unanimity of action. Party lines have never been drawn. The only question has been to find a legal and equitable way of accomplishing the desired end.

As soon as the legality of our present law is assured, it would be well to consider means of removing certain inequalities that now exist. There is no doubt that there are some districts that find the tax very heavy, in comparison with what has formerly been levied. It is true that this is seldom as high as is paid all the time by those high school districts that desire good school advantages. At the same time, the fluctuating amount becomes a cause of unrest in some localities. If the present law were modified so as to levy the cost of tuition for high school pupils from rural schools upon all rural districts of the county as a unit, the basis of levy would be on a large enough area to make the tax imperceptible, and yet it would afford equal privileges to all. The features regarding freedom of choice as to the school attended, as well as the provision making high school districts responsible for the tuition for those grades that they do not maintain, should be retained. With these modifications, the present law would meet Nebraska conditions fully.

The development of self-control is the most important question in moral education. Experiments are now carried on in many schools in this country. Sometimes with wisdom and often with blindness this restless groping secures either a positive or a negative re-

sult. High school teachers cannot afford to neglect so important a movement, even though they may not be ready to put into operation any of the various methods. In the November number of the "Atlantic Monthly," Bertha H. Smith describes a plan which has proved successful in the Los Angeles Polytechnic High School. There is very little machinery connected with their plan. A committee of boys, one from each class elected by the pupils themselves, has charge of the boys' conduct and a similar committee of girls is elected for the girls. The plan is said to be more difficult than the old plan of teacher government, but the results are far better. Let our Nebraska school people follow with interest all these movements, using suggestions as they are able, and being always ready to adopt the good.

H. K. WOLFE.

If there is any subject in which order and precision are of especial importance that subject is mathematics. May it not be permitted therefore to call attention to matters that to some may appear to be trifles?

First, I name unmistakably plain figures and letters. Let me suggest a method of securing this that I found to work. Give daily exercises in free-hand blackboard drawing of very large-sized squares, octagons, circles, rectangles, ovals, parallelograms, slanting ovals, figures, and letters. By very large-sized I mean from one to two feet in height and breadth. The geometrical figures will furnish elements that put together will make the figures and letters. In a month or less every one should be able to make large, handsome blackboard figures and letters. Afterwards require that in all written work the numbering of the exercises and of the sheets should be in figures at least an inch long and as carefully made as the blackboard figures have been.

Second, I name alignment. This, both horizontal and vertical, is helped by the use of cross-section paper. If this is not at hand it is well in almost all arithmetical work, and in a good deal of algebraic as well, to turn the ordinary one-way ruled paper so as to secure vertical rather than horizontal alignment. Exercises at the blackboard can easily be devised to help in this matter also. Notice that the bar of an ordinary fraction or the principal bar of a complex fraction should be aligned with the equality signs. To secure this require the bar to be drawn before the terms of the fraction are written.

Third, I name full and complete statements of the problem to be solved. A problem clearly stated is frequently all but solved.

Fourth, I name full statements of what is done in a solution and why it is done. It is well, especially in geometry, to reserve the right half of the sheet for reasons; these, to save time, may be indicated by clear references to a section of a syllabus.

Fifth, I name the constant use of the syllabus. In all of a student's work it should be before him until from constant use it becomes a part of his mind. Teachers will be surprised to see how much it helps in the formal demonstrations of geometry for each pupil to have before him a syllabus; it makes the solving of "originals" almost a delight. Besides it accustoms the student to taking a broad, comprehensive bird's-eye view of the subject.

ELLERY W. DAVIS.

THE STATE MEETING.

The forty-third annual session of the Nebraska State Teachers' Association broke all records and set a new standard for educational gatherings. Boards of education quite generally approved the proposition that their teachers should be given time to attend this great educational rally, as a matter of school business, and the teachers of the state, to the number of over four thousand, accepted the provision in the spirit in which it was made. The result was in keeping with the experience of other states that have changed the time of meeting to a date other than a holiday period.

The fear that the Superintendents and Principals' Association would lose its identity by coming at this time was not realized. The attendance of those in supervisory work was unprecedented, and in addition there was present a large number of teachers anxious to hear the discussions. The day was spent in considering the preliminary reports of committees appointed by the Educational Commission to prepare courses of study in all subjects of instruction in the first eight grades. The reports treated plans by which the work is being pursued, and were for the purpose of securing suggestions at the formative stage, rather than criticisms of a completed plan. Greater simplicity, was the key word. The spirit of the meeting favored taking plenty of time to prepare courses that will be worthy of Nebraska.

The most brilliant feature of the week was the great Union School Banquet at the Auditorium on Wednesday evening. Superintendent Carrington

presided in a masterly manner. As toastmaster, Superintendent McBrien could not have been surpassed. In spite of the length of the toast list, the program was closed on schedule time. In addition to the one thousand guests at the banquet tables, as many more members occupied seats in the gallery and enjoyed equally the "feast of reason and the flow of soul." No more distinguished list of speakers has honored an educational banquet, including as it did, along with the chosen speaker of each educational institution and organization, such names as Hon. William Jennings Bryan, Governor George L. Sheldon, Senators Burkett and Brown, and Hon. W. E. Andrews. The Wesleyan orchestra played throughout the evening, adding much to the success of the program. Great credit is due to Hon. W. K. Fowler, master of ceremonies, and L. P. Mumford, of the committee on decorations.

So great was the attendance that it was necessary to hold overflow meeting for all but the last general session. This was done by giving in the Presbyterian church the same program, when possible, as that given at St. Paul's church, in alternating order. The attendance Friday morning taxed the capacity of both buildings. Likewise it was necessary to transfer the largest of the afternoon meetings to St. Paul's church, with corresponding changes at the Temple. Several of the sections and of the auxiliary associations were obliged to hold double programs while the Conference on Popular Medical Education gave the same program in three different rooms. Never was the advantage of such a building as the University Temple more clearly shown.

The programs of the meetings were carried out with remarkably few changes. The unavoidable absence of Prof. Balcomb of Oklahoma, was offset by the presence of President J. R. Kirk, of Kirksville, Mo., who has no superior in treating the problems of the rural schools. The primary section was honored with an address by Rev. Anna B. Shaw, national president of the Woman's Suffrage Association, whose appointment came too late to appear upon the official program

The programs of the general sessions were of more than usual interest and success. The high school problem has never been so clearly and helpfully discussed before Nebraska educators. While the spirit and sympathy of a Nebraska audience is more in line with sentiments expressed by Principal Call and Superintendent Waterhouse, it is helpful and instructive to have Dr. Goodwin's point of view, as it represents the position of Commissioner Draper, of New York, and of many other leading eastern educators. Chancellor Andrews' address on Thursday evening was an unconscious, but fitting, reply to this extreme theory of vocational education. Dr. Moulton's interpretative recitals always please and entertain, and his two appearance at this time were no exception. His address before the teachers of literature was especially inspiring. The closing address by President Benjamin I. Wheeler, was a fitting close to the splendid series of meetings. It was an address for thoughtful people, by one who has made a deep study of the influence of a national university upon national life, and was a plea for the realization of the plans that President Washington formed, and that appealed to him as one of the most vital needs of the republic.

The music of the meeting deserves special mention. Mrs. Raymond is an artist at the organ, and it was a rare opportunity to hear her, both in her solo work, and when assisted by the strings in rendering Dvorak's wonderful symphony. The singing of the classes under Prof. Miller's direction was an exhibition of great skill in handling children's voices,—as instructive as it was entertaining. The rendering of Handel's great oratorio, "The Messiah," by the chorus and orchestra of St. Paul's Oratorio Society, under the direction of Prof. H. C. Probasco, was a splendid performance, and was well worthy of the attendance of the teachers if it had been the only feature of the meeting. America is just beginning to realize the educational value of the oratorio as an element that makes for culture, and it is appropriate that this great body of teachers should be brought under its influence.

Much of the benefit of the Association comes from the minor meetings, where specific problems are discussed in a technical way. In spite of the large attendance, it was possible in these afternoon meetings to bring the work very near to the individual teachers. The programs were too many and varied to permit individual mention, but they were, as a rule, of more than usual interest and success.

While the attendance was a surprise, yet the local arrangements had been optimistic enough to provide for even more. P. J. Harrison, of the committee on board and lodging, had canvassed the city systematically, and had a reserve list of fully two hundred rooms unused. Dr. G. E. Condra, of the reception committee, had a large staff of assistants and guides. All trains were met and guides were sent with all who desired such aid. If any had difficulty in securing accommodations it was because they did not avail themselves of the assistance freely offered.

The success of this great meeting is due, more than anything else, to the genius for organization and the splendid leadership of Chancellor Andrews, and it is a fitting climax to his labors in the interests of general education in Nebraska.

DEFINITION OF UNIT COURSES OF STUDY
(Concluded)
Syllabus of Required Topics

This list of required topics is not intended to include all the material for the year's work. It is purposely made short, in order that each teacher may be free to supplement it in a way that fits his individual environment. It does include those topics which all agree are essential to a first course in physics, and which are capable of comprehension, at least to the extent specified in number 6 of the definition of the unit, by boys and girls of high school age.

(*1) Weight, center of gravity. (*2) Density. (*3) Parallelogram of forces. (4) Atmospheric pressure; barometer. (*5) Boyle's law. (6) Pressure due to gravity in liquids with a free surface; varying depth, density, and shape of vessel. (*7) Buoyancy; Archimedes' principle. (*8) Pascal's law; hydraulic press. (9) Work as force times distance, and its measurement in foot-pounds and gram-centimeters. (10) Energy measured by work. (*11) Law of machines; work obtained not greater than work put in; efficiency. (*12) Inclined plane. (*13) Pulleys, wheel and axle. (*14) Measurement of moments by the product of force times arm; levers. (15) Thermometers; Fahren-

heit and Centigrade scales. (16) Heat quantity and its measurement in gram calories. (*17) Specific heat. (*18) Evaporation; heat of vaporization of water. (*19) Dew point; clouds and rain. (*20) Fusion and solidification; heat of fusion. (21) Heat transference by conduction and convection. (22) Heat transference by radiation. (23) Qualitative description of the transfer of energy by waves. (24) Wave length and period of waves. (25) Sound originates at a vibrating body and is transmitted by waves in air. (*26) Pitch and period of sound. (*27) Relation between the wave length of a tone and the length of a string or organ pipe. (*28) Resonance. (29) Beats. (30) Rectilinear propagation of light; pin-hole camera. (*31) Reflection and its laws; image in a plane mirror (*32) Refraction, and its use in lenses; the eye, the camera. (*33) Prisms and dispersion. (34) Velocity of light. (35) Magnetic attractions and repulsions. (*36) Field of force about a magnet. (37) The Earth a magnet; compass. (38) Electricity by friction. (39) Conductors and insulators. (*40) Simple galvanic cell. (*41) Electrolysis; definition of the Ampere. (*42) Heating effects; resistance; definition of the Ohm. (*43) Ohm's law; definition of the volt. (*44) Magnetic field about a current; electromagnets. (*45) Electromagnetic induction. (*46) Simple alternating current dynamo of one loop. (*47) Electromagnetic induction by breaking a circuit; primary and secondary. (48) Conservation of energy.

Chemistry 1 Unit (2 Nebraska)

Chemistry is an art as well as a science. Acquaintance with its elements includes ability to do certain things intelligently as well as remembrance of the bare results of chemical changes. An organized account of the latter is only a sort of desicated residuum if it is not illuminated by the experience acquired along with skill in the former. These books usually—and necessarily—give prominence to the second (the systematic aspect), leaving instruction in the art to the teacher. A requirement in chemistry, on the other hand, must emphasize the art, for it is universal. It will lay less stress on any particular list of substances, reactions, or topics, in view of the extent of the available material, the briefness of the school course and the consequent differences between equally good individual selections. The art cannot, of course, be acquired without a fair systematic knowledge, while a semblance of the systematic knowledge may be acquired without the art. The art is therefore more worthy of emphasis.

It will be noted that the art of chemistry consists in the practical knowledge of the physical properties of all kinds of matter and the utilization of this knowledge in arranging intelligently the conditions before chemical change, in noting all physical indications during experiment and distinguishing the significant ones, and in interpreting the result of this observation. It thus deals almost exclusively with physical conception and facts. It demands, therefore, a careful training in physical facts, physical observation and physical inference. Conventionalized chemical work which can progress without skill in this art (for example, reiterated observation of precipitations) is valueless.

Disregarding questions of order, and simply classifying the essential principles of instruction, the pupil should be taught:

1. Technique of experimentation:

Properties of common apparatus in respect to structure and material. For example, how to make an apparatus air tight, and why? Object of such operations as washing and drying gases and how the object is attained.

Physical properties which may be used for recognition of each substance and for explanation of all observations.

Judicious use of proportions and materials. Influence of conditions (temperature, homogeneous and heterogeneous mixture, etc.) on chemical change.

2. Physical phenomena, their recognition, description, and physical interpretation.

3. The more strictly chemical application of the results. For example, inference in regard to the nature of the chemical change which must have led to the results observed. Making of the chemical equation from adequate data.

The material basis for the above may be found for the most part in the employment of a restricted number of elements and a few of their chief compounds. Facts should be simplified and systematized by generalization, and generalization ("laws") should be illustrated and applied to familiar things. The usual theoretical explanations should be given as the facts accumulate. Laws and theories derive their importance from the facts, not vice versa, and none should be given unless and until the corresponding facts have been encountered in laboratory or class-room experiments.

A knowledge of important chemical industries and ability to work simple problems will be expected.

AGRICULTURAL EDUCATION

A. E. Davisson

OUTLINE AND EXERCISES FOR A COURSE OF STUDY IN SOILS FOR THE USE OF RURAL AND HIGH SCHOOLS

By Alvin Keyser, Associate Professor Soils, University of Nebraska

Note: Experiments With Plants, Osterhout, published by MacMillan Co., N. Y., should be included in the list of references given on p. 14, Vol. V, No. 1, The University Journal.

.. Field Exercise. Re'ation of crops to soil type. Development of plant roots. Nodules on roots of legumes.

Materials: Rule, type, spade and soil auger.

(a) Cross and examine carefully several farms. Observe if the same kinds of crops are grown on sandy soils, loam soils, clay soils and wet soils. Where the same crop is grown on several different soil types, see if you can observe any difference in the growth and apearance. If so, describe those differences and illustrate them by measurements and drawings where possible. Some crops will do well on clay, clay loam, loam or sandy soils, but each crop will usually do best on one kind of soil. Thus, potatoes will do best on sandy soils, while grasses will usually thrive

better on clay, clay loam, and loam soils. Are different crops grown on the different soils of your locality?

(b) Dig down beside a cornstalk. How deep is it to the first roots? to the deepest roots? Repeat in several different places, on several different soils if possible. How deep could a cultivator go without hurting the roots? Similarly, find the depth of as many different crops as possible, such as the small grains, pastures and meadows, clover, alfalfa, etc. With a little care and experience it will be possible to tell very closely the root penetration of different crops by boring with the soil auger. The auger will bring up pieces of roots together with the soil. Carefully examine each core brought up by the soil auger. With a little practice it will be possible to determine, within an inch or so, the depth of root penetration. As the roots decay they add to the organic matter and tend to make the soil more productive. Which of the plant roots examined would tend to deepen the soil and be most valuable when they decay?

(c) Carefully dig up a clover or an alfalfa plant; keep a considerable body of soil with the plant and carry the whole to the laboratory where the soil may be removed from the roots by careful, gentle washing so as not to break or pull off the tender rootlets. Look for nodules or tubercles on these roots. Bacteria live in the nodules. By means of these bacteria nitrogen is taken out of the soil and changed into forms that can be used by higher plants. Nitrogen is one of the most important of the plan food materials and one of the quickest to be exhausted by continuous cropping. When bought as a fertilizer it is the most expensive. Members of the pea and bean family of plants (legumes) are capable of getting their own nitrogen and enough more to enrich the soil. Some of the legumes you may find are, white and red clover, sweet clover, beans, peas, vetches, and alfalfa.

References: Farmers' Bul. 215, p. 15; Physics of Agriculture, pp. 150-157; Experiment with Plants, pp. 133-135.

8. Recitation on 7.

9. Recitation on 7 and references.

10. Recitation. Root systems of plants. Study and recite on Farmers' Bul. 233, pp. 5-11; Bul. 127, Kansas Experiment Station; Bul. 64, North Dakota Station.

11. Recitation. Continuation of recitation on root systems of plants.

12. Demonstration. Relative productivity of soil and subsoil. (This exercise will give good results upon the soils of eastern Nebraska, but rather doubtful results in many portions of western Nebraska. It should, therefore, be worked out by the teacher and presented to the class if the results are good, but should be omitted if the results are poor. The exercise should be started three or four weeks before it is desired to use it.) Materials: Two six-inch pots, wheat or barley seed, and soil and subsoil from the same place.

Fill one pot with surface soil and the other with subsoil and plant ten or twelve wheat or barley seeds about an inch deep in each pot. Keep these watered and in the best condition to make good growth. Why? What would become of the surface soil on a steep hillside? What would remove it? Would the surface left after washing be as fertile as before? Why? How could the soil be kept from washing? Could the subsoil become good soil? Deep plowing deepens the surface soil and sometimes makes it more fertile. To deepen a soil which has always been plowed shallow, it is usually best to plow a little deeper each year rather than plow very deep the first time. Why? What is a "dead furrow" and why so named?

Reference: Physics of Agriculture, p. 49.

13. Demonstration or laboratory exercise. Soil particles and their separation.

Materials: Two beakers, three Mason fruit jars, pan, and glass stirring rod. Prepare for (b) a day in advance.

(a) Put about a tablespoonful of sand in one beaker and clay in another. Shake each and allow to settle. Which settles more rapidly? Why? Put about a tablespoonful of sand in one Mason fruit jar nearly full of water and clay in another; set aside to settle. If they do not settle quickly, add a tablespoonful or so of alum water, made by dissolving common alum in water. Now take the Mason jar containing water and sand in one hand and the glass stirring rod in the other. Insert the glass rod into the water within the jar to a depth of one and one-half or two inches; slowly revolve the glass rod inside the jar; this sets up a slow current which will pick up some of the particles; gradually increase the velocity of the revolutions, thus making a more rapid current. Repeat, using the jar containing the clay. Set aside and watch. Which is deposited most rapidly? Why? Which is most quickly and easily carried by the current? Why? Which would be deposited first when a swift stream is checked? Is there any evidence in your neighborhood of the sorting power of water? Did the glaciers sort the soil in this manner? How could you separate the different sized particles of soil into different grades?

(b) The day previous to giving this exercise put about four tablespoonfuls of fertile loam soil in a Mason jar and nearly fill with water. Cover. Shake occasionally. After standing a day, shake thoroughly. Allow to settle one minute. Pour the roily water into another jar; allow to stand one hour. Pour off the roily water and evaporate by setting on a stove or over a flame. When dry (probably by the next exercise), examine the dry separates. The parts that settled out last may bake into thin cakes or flakes on drying, in which case they should be pulverized by careful working in the motor. Examine the dry separates. The part that settled out first is sand, the second is silt, and the last and finest material is clay. Have the pupils examine them to find the different texture. Which ones stick together? Would pure clay or pure sand make a good soil? Why? Save the materials for exercise No. 15. One way we can roughly approximate the mechanical analysis by the eye and hand is as follows: Sand is composed of particles large enough to be seen by the naked eye (particles as large as one-twenty-fifth of an inch in diameter and larger are gravel, pebbles or stones, according to their size); silt is too fine to be distinguished by the eye, but is coarse enough to be felt with the fingers, feeling gritty to the touch; clay particles are too fine to be felt; they give a smooth, rather greasy feel.

References: Experiments with Plants, pp. 103-109; Soils, Fletcher, pp. 51-74.

14. Recitation on 13.

15. Laboratory exercise. Microscopical examination of soil particles.

Materials: Compound miscrosope and the separates obtained in exercise 13.

Place some of the sand particles, obtained in exercise 13, on a glass slide; moisten and cover with cover glass. Examine with a magnification of 50 diameters. In the same manner examine silt with magnification of 100, and clay with a magnification of about 500. Have each pupil make a drawing of a few particles of each. Notice that the soil particles are more or less altered rock fragments mixed with a certain amount of organic matter. Find black particles of organic matter and draw some from each separate, sand, silt, clay. Find compound particles of silt and clay; i. e., several particles joined together to form a crumb or floccule. If such particles are not readily found, a careful examination of a good loam or clay soil will usually show them in abundance. Keeping a clay soil in good condition is largely a matter of keeping the particles united in this crumby or flocculated condition.

References: Farmers' Bulletin, 187, pp. 6-7; Physics of Agriculture, pp. 108-110; soils, Burkett, pp. 23-33.

16 and 17. Recitation on 15.

18. Demonstration exercise. One effect of humus and organic matter on clay soils. (Applicable to eastern Nebraska and some other portions, but of little practical application to much of central and western Nebraska because of the relatively small areas of clay or heavy loam lands.)

Materials: Clay, one-fourth pound unslacked lime, leaf mold or well-rotted manure, and wide-mouth bottles or Mason jars.

(a) One or two hours before the class period the lime should be nearly covered with water to slack it. Take clay enough to make three balls about the size of a large peach; divide the clay into three equal parts. To the first add water; to the second add water and about half its volume of organic matter; to the third part add lime water. Form each part into a ball and set aside to dry. In a few days examine and see which is more mellow. What would likely happen if clay land be worked while wet? What is one value of organic matter in a clay soil? What one good result is accomplished by adding lime to a clay soil? How do farmers get organic matter in their soils?

(b) Put a tablespoonful of well-pulverized clay in each of two wide-mouth bottles or Mason jars. Fill nearly full with water and shake thoroughly. Add a little lime-water to one. Which one settles more rapidly? Why? Describe what occurs.

References: Farmers' Bulletins 78 and 144; First Principles of Soil Fertility; Soils, Burkett; Soils and Fertilizers, 3d edition.

19. Recitation. Humus and organic matter in soils and its value. Study and recite Farmers' Bulletin 78, pp. 5-9, and 144, pp. 5-6; First Principles of Soil Fertility, pp. 94-104.

20. Laboratory exercise. Determination of the per cent of water, organic matter and mineral matter in soils.

Materials: Set of six soil and subsoil samples collected in a previous exercise, seamless tin boxes, iron crucibles, and balances.

Give each of the pupils one of the six samples. If there are more than six in the class, results may be obtained on all six of the samples. Weigh a tin box. Put 10 grams of one of the samples in it. Put the cover on the tin box while weighing to prevent loss of moisture into the air. Put into the oven and dry for two hours at a temperature of 110° C.; cool and weigh. Put into the oven again for one-half hour; cool and weigh. Repeat this process until constant weight is attained. The loss in weight is water. When thoroughly dry, transfer to a weighed crucible and weigh again. Heat the crucible and dry soil, at first slowly then strongly, for an hour or more, thus burning up all organic matter. Cool the crucible and weigh; the loss in weight is organic matter. Compute the results on the basis of the dried soil, i. e. dry soil equals 100%. Tabulate the results as follows:

	Sandy loam		Clay		Fertile loam	
	Soil	Sub-soil	Soil	Sub-soil	Soil	Sub-soil
Wt. box.....gms.	.....	.....	.....	.....	.....	.....
Wt. box and soil.."...	.....	.....	.....	.....	.....	.....
Wt. soil....."...	10	10	10	10	10	10
Wt. both dry....."...	.....	.....	.....	.....	.....	.....
Per cent water.....	.....	.....	.....	.....	.....	.....
Wt crucible.....gms.	.....	.....	.....	.....	.....	.....
Wt. soil..... ...."...	.....	.....	.....	.....	.....	.....
Wt. crucible & soil"...	.....	.....	.....	.....	.....	.....
Wt. both after burning....."...	.....	.....	.....	.....	.....	.....
Per cent organic matter.....	.....	.....	.....	.....	.....	.....
Per cent mineral matter..	.....	.....	.....	.....	.....	.....

What change in color took place as the soil dried? Does rain change the color of soil? What was the color of the soil after burning? Only mineral matter remained after burning. What soil contained more water? More organic matter? Do surface or subsoils contain more organic matter? The red or yellow color of the soil after burning is due to iron compounds. Organic matter tends to give a black color to soils; iron compounds tend to color soils red or yellow.

21. Recitation on 20.

22. Demonstration or laboratory exercise. Per cent of volume of soils occupied by air.

Materials: Six beakers (drinking glasses or tin cups will do), graduate, and six soil samples collected in a previous exercise.

Put a measured quantity of soil in each beaker. Measure out a known quantity of water in the graduate; pour water from the graduate upon the soil until the water just rises to the surface of the soil? How much water does it take in each case? Record the results as follows:

	Sandy loam		Clay		Fertile loam	
	Soil	Sub-soil	Soil	Sub-soil	Soil	Sub-soil
Volume of soil.....	.....	.....	.....	.....	.....	.....
Volume of water added.....	.....	.....	.....	.....	.....	....
Per cent of air space	.....	.....	.....	.....	.....	.....

The amount of water used would be approximately equal to the air space. Consequently a dry soil would have greater air space. This determination gives the space for soils as collected in the field. Which soil contains more air? Is air necessary in soils? Do soils ever have too little air? Too much? Can the amount of air in a soil be influenced by tillage?

References: Farmers' Bulletin 187, p. 7; Physics of Agriculture, pp. 204-211; First Principles of Soil Fertility, p. 66.

23. Recitation on 22.

24. Recitation. Physical Composition of Soil.

1. Solid matter, (a) mineral, (b) organic.

2. Liquid Matter, soil water and substances dissolved in it.

3. Gaseous matter, (a) air, (b) carbon dioxide, (c) water vapor.

25. Laboratory exercise or demonstration. Water capacity of soils. Solution of plant food materials.

Materials: Air-dry sand, clay, loam, well-rotted manure, or leaf mold, solution balance or spring balance, and four tin cans with holes punched in bottom, holes in side and string or fine wire across for a bail.

(a) Weigh each can. Fill three-fourths full, one with each of the three soils, one with clay mixed with leaf mold or well-rotted manure, one with sand mixed with leaf mold or well-rotted manure. Add water until thoroughly wet. Let this drain off until free water ceases to flow out; wipe carefully and weigh. The soil and organic matter used in this exercise should be oven-dried to make the experiment accurate, or the water present in the air-dry soil may be determined as in a previous exercise.

	Sand	Sand and leaf mould or manure	Loam	Clay	Clay and leaf mold or manure
Wt. of can					
Wt. of can and soil					
Wt. of soil					
Wt. of water					
Per cent of water					

Dip a pebble in water. Notice the water that remains when the pebble is removed. Where is the water held? Suppose that the pebble were broken in two, what effect would this have on its water-holding capacity? Why does sand hold less water than clay? What effect does the addition of organic matter have on the water-holding capacity? Notice that organic matter holds water all through its substance as well as on its surface, as a piece of cloth or wood. Give two ways a farmer might increase the water-holding power of his soils.

(b) The water, held by the mineral matter of the soil, is held as a thin film, about the outside of the particles. This water dissolves some of the mineral matter and we have a soil solution. That there is solution can be proved by taking ordinary well or spring water and evaporating some of it to dryness, where it leaves a slight residue in the vessel. The scale in tea kettles comes from this source. Would pulverizing the soil affect the amount of mineral matter dissolved by the soil water. How? How do plants get their food materials from the soil?

References: Physics of Agriculture, pp. 131-132, 145-150; Soils, Fletcher, pp. 75-84; Soils, Burkett, pp. 35-43, 44-51.

26. Recitation on 25. (Enough for two or more lessons).

27. Laboratory or Demonstration exercise. "Warm" and "cold" soils.

Materials: Two thermometers, two flower pots, one beaker, sand, clay, and pieces of cloth.

Tie a piece of cloth around the bulb of one thermometer so that a strip of cloth hangs down an inch or so. Hang this above the beaker containing water the same temperature as the room, so that the strip of cloth is in the water and on the bulb of the thermometer just above it. Leave the other thermometer in the air outside the beaker. In about fifteen minutes read the thermometers and take the temperature of the water.

Temperature of air,
Temperature of wet bulb,
Temperature of water.

Why is the wet bulb thermometer colder than either the air or the water? Why do the hands feel cold when wet? Call attention to the heat needed to evaporate a kettle of water. In a previous exercise it was seen that clay holds more water than sand. When the ground thaws in the spring and evaporation becomes more rapid, which would be the warmer soil? Why? We commonly speak of sandy soils as "warm" soils and of clay as "cold" soils. Which is better adapted to early spring and trucks crops? Early spring plowing loosens the soil so that the water evaporates. After this the plowed soil becomes the warmer. Why?

References: Physics of Agriculture, p. 220; Soils, Fletcher, pp. 31-33.

28. Recitation on 25 and 27.

29. Laboratory or demonstration exercise. Relation of color to temperature.

Materials: Two thermometers, soil, white chalk dust (well-pulverized, air-slaked lime will answer), soot or lampblack, two small boxes, and strips of white and black cloth.

Select a place in bright sunlight where there is no wind or draft. Stretch the black and the white pieces of cloth between sticks and take the temperatures one inch in front and one inch in the rear of each piece.

Temperature in air,
Temperature in front of black cloth,
Temperature behind black cloth,
Temperature in front of white cloth,
Temperature behind white cloth.

Which is the warmer? Why?

Fill two boxes nearly full of soil. Bury the bulb of the thermometer about an inch deep in each. Cover one with white lime dust and the other with soot.

Read the thermometers from time to time. Which is the warmer? Why?

References: Physics of Agriculture, p. 217; Soils, Fletcher, pp. 34-36.

30. Recitation on 29.

31. Field exercise. Soil temperatures. This exercise can be performed best in the spring and fall, when the entire soil mass is not very warm. In midsummer and early fall, the soil is so thoroughly warmed by the heat that good results are not readily obtained.

Materials: Two or more thermometers, soil auger and trowel, or large butcher knife.

It is best to take this trip on a bright, still day in the spring about the time spring plowing begins. To take the temperature, the bulb of the thermometer must be placed carefully in the soil at the desired depth. Very great care must be taken or the thermometer may be broken. Take temperatures at a depth of one, two, three, fifteen and thirty inches. For taking the deeper temperatures bore a hole with the soil auger and with a string, carefully let the thermometer into it, to the desired depth. Leave the thermometer in the soil 15 or 20 minutes before reading the temperatures. Take temperatures on a north and on a south slope, on clay and sand, on unplowed and on plowed fields, on grass land and tilled fields. As far as possible adjacent fields that are

alike in all respects except the two things to be compared should be chosen. Which is the warmer? Why?

Reference: Physics of Agriculture, pp. 212-222; Soils, Fletcher, pp. 34-36.

32. Recitation on 31.

33. Demonstration or laboratory exercise. Capillary or film rise of water in soils.

Materials: Several fine glass tubes of different sizes, two small glass plates, four glass tubes, one inch in diameter or larger, frame for holding the tubes, long shallow pan for water, rubber bands, cloth, sand, loam, clay, cut straw or coarse sawdust, and eosin or potassium permagnaate to color water. Four student lamp chimneys may be used instead of the large glass tubes.

(a) Make up a colored water solution using one of the coloring matters suggested. Place a little of the colored solution in a shallow glass vessel. Immerse the lower ends of several of the small different-sized glass tubed in this colored solution. In which does it rise the righer? Why?

Fasten the two small glass plates together with rubber bands. Sharpen a match stick to a small thin wedge and insert between the plates at one side. Now place the lower edge in the colored solution and watch the rise of the colored liquid between the plates. Note that the colored liquid rises highest on the side where the plates are nearest together. Make drawings of each of the above.

(b) Put a cloth over the end of each tube and fasten with a rubber band. Fill one tube with sand, one with clay, and one with loam. Put three or four inches of loam in the bottom of the fourth tube, place on top of this about two inches of the cut straw or coarse sawdust, and finish filling the tube with loam. Place all in the frame with the lower ends immersed in the pan of water. In which does the water rise most rapidly? Why? Record results as follows:

Time	Height of Water			
	Sand	Loam	Clay	Loam with Sawdust
½ Hour	.....	.....	.....	.....
1 Hour	.....	.....	.....	.....
2 Hours	.....	.....	.....	.....
1 Day	.....	.....	.....	.....
Etc	.....	.....	.....	.....

Keep the apparatus set up for a week at least. In which tube does the water rise the highest? Why? Compare with rise of oil in a lampwick; of ink in a blotter. What is the object in compacting the soil over seeds in planting? In what different ways is this done? What effect has the cut straw or sawdust layer on the rise of water? What would be tne effect in the field if a heavy layer of dry straw or trash were plowed under?

References: Farmers' Bulletin 218, p. 13; Physics of Agriculture, pp. 161-174; Soils, Burkett, pp. 37-40; Soils, Fletcher, pp. 30-31.

34. Demonstration or laboratory exercise. Capillary or film movement of soil water may take place in any direction.

Materials: Loam soil, blotting paper, lumps of "cut loaf" sugar and a shallow pan.

(a) Lay a piece of blotting paper on the table. Then with a spoon or knife place a small amount of water in the center of the paper. Notice the water spread in all directions. Wet a portion of the paper quite thoroughly. Now place a lump of the "cut loaf" sugar upon the wet spot. Notice the water rise in the lump. Now touch a portion of the wet paper to the top, to the edge, and to the side of other lumps. Notice that the water moves downward as well as upward as well as sidewise.

(b) Place some of the dry loam in the pan and pour some water in at one end. Notice that the soil becomes wet sidewise. Build a cone-shaped pile of the dry loam and make a slight hollow in the top. Pour a little water into this hollow and watch the moisture spread down.

35. Recitation on 33 and 34.

36. Laboratory or demonstration exercise. Percolation of water through soils. Power to receive rain.

Materials: Three glass tubes (same as exercise 33) or student lamp chimneys, frame for holding same, loam, clay, three cups for catching water, cloth, rubber bands, and a graduate.

Place a piece of cloth about the lower end of each tube; fasten with a rubber band. Fill one tube with sand, and to the same height one with loam and one with clay. Place in the frame, with a cup under each tube. With the graduate measure a quantity of water, pour the water onto the sand, taking care not to run water over the top of the tube, until water commences to come through the lower end of tube. Measure the amount of water used, and note the time required for the water to pass through the column of sand. Repeat with the loam and the clay. Which passes through most quickly? Why? Which soil would take rainfall most readily? Which least? Which could be worked soonest after heavy rains? Why?

References: Physics of Agriculture 115, pp. 159-160.

37. Demonstration or laboratory exercise. Evaporation from soil and effectiveness of mulches.

Materials: Solution balance, three tin cans, soil, and fine grass or cut straw.

Fill each can nearly full of soil. Water each with the same amount of water. Leave the top of one untouched. Cultivate one daily to the depth of one inch as soon as the surface is dry enough. Cover the top of the third with the cut grass or straw.

Weigh the cans at the beginning and every day for two weeks.

Date	Bare Surface		Cultivated		Straw Mulch	
	Wt.	Loss	Wt.	Loss	Wt.	Loss
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....

Which loses weight most rapidly? Why? What is one use of cultivation during a dry time? When is the proper time to stir or cultivate? What would be the general effect of tillage in a wet season? Dry season? Why does a dry, loose soil act as a mulch? Why is the soil under a grain shock or hay cock often moist when the rest of the field is dry?

References: Physics of Agriculture, pp. 181-203; Experiments with Plants, p. 115.

38-39. Study and recite on 37 and its references (long enough for more than two lessons).

40. Demonstration exercise. Soil Drainage.

Materials: Two flower pots or two tin cans with holes punched in bottom, soil, and corn or wheat kernels.

Plant corn in the two pots. Place one in a dish of water so that it will be kept saturated. Water the other in the usual way. Notice the effect on the germination and growth of the corn. If the corn in the wet pot grows, empty both pots and examine the roots. In which pot are the roots best developed? Which go deeper? What is the effect of flooding on field crops? On trees? What crops will do better on wet soils? What is the nature of the sub-soil in your vicinity at depths of from 2 to 10 feet—sand, gravel, clay, rock or loess? This can be answered by making borings with the soil auger. In many places railroad and wagon road cuts will give the desired information. Is the soil in your neighborhood in need of drainage?

References: Physics of Agriculture, pp. 204-205; Soils, Fletcher, pp. 189-212; First Principles of Soil Fertility, pp. 75-82; Soils, Burkett, pp 152-161; Farmers' Bulletin 187.

41. Recite on drainage. In eastern Nebraska and in localities along river courses, a study of drainage warrants considerable attention. Isolated localities in other portions of the state could profitably devote considerable attention to the subject. The amount of time should, therefore, vary from one to three exercises and recitations. For study and recitations use Farmers' Bulletin 187.

42. Recitation. Study function of roots and leaves. If this information is given in botany it need not be given in soils.

Study and recite Physics of Agriculture, pp. 142-147.

Study of root hairs, their function, osmosis, respiration, formation and translocation of food and microscopic studies of plant parts and tissues should be done in botany. If not taught in botany they should be given at this time.

43. Demonstration or laboratory exercise. Plants take up water from the soil.

Materials: Tin cans, soil, kernels of corn or wheat, thick wrapping paper, and paraffin.

Take two tin cans and punch holes in the bottom for drainage. Fill each nearly full of soil. Moisten the soil in each to the proper condition for growing plants. Use the same amount of water on each. Plant four or five kernels of the corn (or wheat) in one can. Put nothing in the other. Water each can the same until the corn is about four inches high. At this point, wet the soil thoroly, and allow to drain. From wrapping paper cut halves of circles the same diameter as the tin cans. Fit these half circles into the cans, allowing them to rest on the soil, now melt parafin by setting a dish of it in hot water and by means of a brush thoroly coat the top of the paper with the melted paraffin, taking care not to seal the outside edges. Weigh the cans. Weigh each day for a week. Which has lost the most moisture? Where has it gone? What happens to the corn as it uses up the water in the soil? What causes corn leaves to curl up during a drouth?

44. Demonstration and laboratory exercises. Weight of soils.

Materials: Solution balance (spring balance may be used, tho not so accurate), sand, clay, tin can or pail, and a measure. Fill a can or pail nearly full of sand and weigh. Measure exactly the same amount of clay and weigh. Which weighs the most? Explain fully what is meant by "heavy" and "light" soils. We commonly call clay "heavy" and sand "light." The clay is called "heavy" because it stirs with difficulty. On the other hand, sand is called "light" because it stirs easily. Are the soils in your neighborhood mostly "light" or mostly "heavy?"

Reference: Physics of Agriculture, pp. 127-128.

45. Recitation. Worn-out soils.

Study and recite on Farmers' Bulletin 245; Soils, Burkett, pp. 282-290.

46. Demonstration. Plant food materials.

Materials: Seven 4-inch pots, balances, sand, air-slaked lime, potassium sulphate or chloride calcium phosphate or sodium phosphate, sodium nitrate, and stable manure.

Fill each pot with pure sand. Number the pots. Add the food materials as follows:

(1) Check (nothing).

(2) 10 grams lime.

(3) 10 grams lime, 1 gram potassium chloride or sulphate.

(4) 10 grams lime, 1 gram calcium or sodium phosphate.

(5) 10 grams lime, 1 gram sodium nitrate.

(6) 10 grams lime, 1 gram each of potassium chloride or sulphate, calcium phosphate and sodium nitrate.

(7) About a teacup full of stable manure.

Mix the material of each pot thoroly. Now plant five kernels of wheat or barley in each, and water the pots. Maintain the best possible conditions for growth. Record the growth from day to day. Note difference in color, appearance and amount of growth. The differences should become apparent in from two to four weeks.

References: Experiments with Plants, pp. 139-160; Soils and Fertilizers, pp. 97, 164, 177, 187.

47. Recitation. Elements necessary for plant growth. (Chemistry should be taken before this exercise is given unless the teacher is very well grounded in chemical knowledge.) The teacher should first give talks on the elements necessary for plant growth and follow with recitations on the talks and the following references. Those elements liable to become deficient by cropping should be especially considered.

References: Physics of Agriculture, pp. 69-71; Soils and Fertilizers (look up in the index); Experiments with Plants, pp. 137-140.

47. Laboratory and Recitation. Fertilizers.

Materials: The following commercial fertilizers should be obtained from local drug stores or from dealers in chemical supplies. Some of the fertilizer houses will supply sets of samples at very nominal costs. Among these are the Nitrate of Soda Propaganda, 12-17 John Street, N. Y.; The German Kali, 93 Nassau Street, N. Y.; American Agricultural Chemical Co., N. Y. Get about one pint each of sodium nitrate, dried blood potassium sulphate, super-phosphate, ground steam bone meal, raw rock phosphate. Many of the materials may be obtained of Swift & Co., or the Armour Co., of South Omaha.

The chief object of this exercise is to familiarize the class with the appearance and names of these various carriers of plant foot materials and which element each fertilizer carries. The fertilizer problem has not become imminent in Nebraska. Consequently this exercise is valuable chiefly to round out the student's knowledge.

References: Soils and Fertilizers, chapter on Commercial Fertilizers and their Uses; First Principles of Soil Fertility, pp. 219-260; Soils, Burkett, pp. 227-254.

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The University Journal

Devoted to the Interests of the University and of Education in the State of Nebraska

Vol. V. LINCOLN, NEBRASKA, JANUARY, 1909. No. 4.

The State Universities and the Carnegie Retiring Pensions

George Elliott Howard, Ph. D.

Both in theory and practice the granting of retiring allowances on the basis of age or service has long been sanctioned as sound educational and social policy. In Germany and in some other European countries, all grades of teachers, from the elementary schools to the state-supported or controlled universities, are pensioned on retiring from active service. Likewise in the United States a few of the private foundations have provided pensions for the members of their teaching and administrative bodies. Such, for instance, is the case of Williams College, which maintains a very liberal pension system. Most of our colleges, of course, are too poor to follow her example.

Hence it is not surprising that the establishment on April 16, 1905, of the "Carnegie Foundation for the Advancement of Teaching" elicited widespread sympathetic response. That institution was then endowed with $10,000,000 to create an interest fund for the purpose of providing retiring pensions for teachers in non-sectarian colleges, universities, and technical schools in the United States, Canada and Newfoundland. At that time state-supported institutions were not included.

There are obvious reasons why a collegiate pension system may prove of great social and educational value. At the best, professorial incomes are small compared with the rewards which the same ability and cost of training are able to command in many other vocations. Yet it is of the greatest moment to society that scholars engaged in the creative research by which the boundaries of knowledge are widened shall be freed from anxiety on the bread-and-butter question, and be able to devote themselves zealously and uninterruptedly, to research. "I have reached the conclusion," says Mr. Carnegie in tendering the pension endowment, "that the least rewarded of all the professions is that of the teacher in our higher educational institutions. The consequences are grievous. Able men hesitate to adopt teaching as a career, and many old professors, whose places should be occupied by younger men, cannot be retired."

It was soon perceived that the liberal pensions provided for the teachers in the private colleges, notably in those of the east, put the state universities at a great disadvantage. At the highest, the average salary of the western state university teacher is much lower—at least thirty per cent lower—than that of his colleague of the same rank in the east; and in this regard, be it noted, the Nebraska professor stands well toward the bottom of the list. The western state universities have been unable to compete with their richer rivals. Many of their best teachers have been drawn away by the offer of higher rewards for service. Still less would the state universities be able to hold their own when retiring pensions were added to the resources of their rivals.

As a result, representatives of the state-supported institutions "formally requested that the benefits of the Foundation be extended to them." Accordingly this was done on March 31, 1908, when $5,000,000 were added to the endowment for this purpose.

Any state university may now secure for its teachers the benefits of the Foundation on application by its governing board; provided the

application be approved by the legislature and the governor of the state.

This winter, therefore, in all of the states whose legislatures meet, the question will arise: Shall the proffer of the retiring pensions be accepted? The question is almost sure to be answered in the affirmative. That sentiment is strongly in its favor, the writer knows from personal discussion with representative men of leading universities, such as those of Minnesota and Wisconsin. Indeed, the legislature of Massachusetts has already approved the application of her state agricultural college for participation in the Foundation.

Thus a powerful example has been set; and it can scarcely be doubted that it is a wise example. It can hardly be validly objected that the state should not accept such a gift from a private source. There is small danger that harm to society can result: for the legislature may at any time withdraw its approval, should any bad tendency develop. This is the great saving clause in the proposed endowment; since, to all intents and purposes, the state by approving, and by implication reserving the power to withdraw its approval, virtually makes the pension system its own. Moreover, it is highly probable that most of the state institutions will accept the benefits of the Foundation. Those which fail to do so will thus be doubly handicapped. They will find it hard to compete, not only with the rich private foundations of the east, but even with sister state universities which shall have added retiring pensions to their other resources. Besides, it is almost certain that the western states will long hesitate to provide such allowances from their own revenues.

It will be safe and wise for the University of Nebraska to participate in the Carnegie Foundation. All the more so, because after its benefits are once accepted, there is no opportunity for favoritism or unjust discrimination in the case of individual teachers. In effect the operation of the system is automatic. A contractual relation is created; and surely the courts would maintain the just rights of any teacher, even against an unwise action of the Board itself, should such an emergency ever arise. The state itself is thus a bulwark against oppressive use of the system. Freedom of teaching is not in peril. Academic and democratic ideals are safe.

SUMMER EDUCATION 1909

Paul H. Grummann

The Summer Session has become a part of the Teachers' College, and the character of the work will naturally be affected by the change materially. The University has assumed the responsibility of training well-equipped teachers for secondary schools, and the summer session extends the facilities of the University to those teachers who are at work during the college year.

The next session will meet this increased responsibility in a number of ways. The work in Education will be greatly extended. In addition to the courses offered by Prof. Luckey, courses in school administration will be given by Dean Fordyce. In the University Temple an observation school in eighth grade work will be conducted by an expert critic teacher and students will enter the work under the supervision of Dean Fordyce. Associate Director Reed will repeat the course in Reading which was offered in the last session and will conduct a High School Conference twice a week. In this conference all high school teachers will meet to discuss problems of secondary education. Attention will be paid to general questions, and also to matters of departmental interest.

In addition to the regular educational courses, a large number of educational lectures will be provided. Arrangements are being made with a number of the most prominent educational authorities for single lectures and courses of lectures on topics of importance. All students who are enrolled in educational courses will be excused from regular work during the sessions of the National Educational Association. The faculty in Education will organize a party of students for this meeting and plan not only for the comfort of students at Denver but assist them in utilizing their time to the best advantage.

A large number of preparatory courses will be offered which are to serve a double purpose:

(a) to give students who are deficient in entrance requirements an opportunity to make up their deficiencies,

(b) to place secondary instruction of a high order upon the campus where it may

be observed conveniently by the teachers of the State. It is the aim of the faculty to stimulate good teaching also by opening all recitations to students who regularly apply for the privilege of visiting.

The present plan of the directors contemplates secondary courses in Algebra I and II, Plane Geometry, Solid Geometry, Latin I, Caesar, Cicero, German I and German III. All of these classes will recite two hours daily, thus enabling the pupils to finish a full semester's work.

During commencement week and the first week of the summer session an exhibit of art and manual training work will be held in the art rooms of the University Library. This exhibit will be arranged in such a manner that superintendents and principals may easily observe the various trends of art and manual training work in the schools.

The interest in this work will also be stimulated by regular summer school courses. Mr. A. E. Bunting will offer a course in manual training in which the needs of the teacher will be specially emphasized. Mr. Bunting has had ample experience in the various types of manual training work undertaken in schools, and will shape his course in accordance with the actual needs of the students who present themselves.

A new departure will be made in art instruction. In addition to the courses of the affiliated School of Art offered in previous sessions, Miss Louise Easterday Mundy will offer a practical course for teachers of drawing. Miss Mundy has had the excellent training which is given at Pratt Institute in this work, and will be able to assist teachers materially in vitalizing this important subject.

At the last session a number of lecture courses of a general cultural value were offered. Although no credit was offered for work in these courses, the attendance was encouraging. It is proposed to develop these courses to such an extent that teachers who do not care to take regular courses in the summer session will find this feature so attractive that they will attend the session for it alone. Six or seven courses, embracing some of the most important fields of work, have already been secured. In addition to these courses, a daily convocation will be held, and once a week a concert will be given.

While great stress is to be placed upon the professional and cultural side of the teachers' work, the regular university courses will also be extended materially.

It is hoped that enough advanced courses may be offered to satisfy the demands of all high school teachers in the State. Graduate instruction or direction of graduate study will be undertaken by almost all departments, and members of the faculty will be glad to confer with students in regard to problems of research as well as instruction.

The Division for Teachers of Rural Schools will be continued and enlarged. The University will place its excellent equipment for agricultural instruction at the disposal of teachers of rural schools and in addition to agricultural courses will provide instruction in all branches required for elementary certificates. Associate Director Davisson will provide for a series of convocations which will be particularly helpful to teachers who have a vital interest in agriculture, and kindred subjects which are assuming an important place in the school curriculum.

The completion and equipment of the Home Economics Building at the University Farm makes a number of very important courses possible. In this building courses for the training of teachers of sewing and cooking will be given in addition to more elementary courses for pupils of high school age. Girls who attend high schools in which no work of this nature is given will have an opportunity to pursue it here under the most favorable conditions. Board and rooms as well as supervision will be furnished at the Home Economics Building for students of this class. Applications for accommodations will be honored in the order in which they are received, and the attendance will be limited by the capacity of the building. The enactment of the Child Labor Law has brought the question "What to do with the boys during the summer vacation" before parents with increased force. In many instances the boy should not and does not

care to continue his regular school work. The University offers a solution of the difficulty. It is proposed to offer work in manual training, and agriculture (with an option in certain common branches) at the University Farm. A building will be set apart for a dormitory and board will be furnished at a nominal cost. In this manner the boys will have a summer vacation that will combine educational advantages with the pleasure of an outing. Competent supervision will be provided, so that parents may feel assured that their boys are under proper influences. Parents will have the option of placing their boys in private families, but in that event the University will assume no responsibility beyond the courses of instruction. The number of boys to be accommodated at the University Farm will, of course, be limited. Application for accommodations should be made to Associate Director A. E. Davisson as early as possible.

In the next number of the University Journal a complete list of all courses to be offered in the summer session will appear. The bulletin of the session is in course of preparation and will be mailed upon request.

UNIVERSITY EXTENSION

J. L. McBrien, Director

By means of University Extension, the Regents of the University of Nebraska desire to give every citizen of the commonwealth an opportunity to get the highest education possible at the least practical cost—to bring the University and the home in close touch, to take the University to all the people of the State. For convenience and efficiency the work probably will be divided into four departments as follows:

I. Correspondence-Study.
II. Instruction by Lectures.
III. Debating and Public Discussion.
IV. General Information and Welfare.

I. Correspondence-Study

The possibility and efficiency of teaching by Correspondence-Study has already been demonstrated by practical experience in University Extension work in the leading universities and colleges of both Europe and America. While such instruction lacks some of the advantages which resident study gives, it has compensating advantages of its own. In correspondence instruction the teaching is personal and individual. Every student studies and recites the whole lesson, and comes in contact by correspondence with the teacher as an individual, not as a member of a large class. Correspondence-Study employs the spare time of the student, gives him an interest beside his daily work. It can be done at home, and thereby brings into the home a new influence and charm. Correspondence work, moreover, throws the student upon his own resources and makes him self-reliant and self-determining.

Through this new department, the University is reaching out a helping hand to every citizen. It plans to add to the resources of life, of education and of industry; to give practical assistance to the farmer and the mechanic, to the professional man and the business man, to the employer and the employee, to teacher and to student, to farmer boy and farmer girl, to housekeeper and home-maker.

Special Course for Teachers

By February 1, 1909, the department hopes to be ready to give a special correspondence course for teachers in a majority of the subjects required for a First Grade County Certificate, a Second Grade County Certificate and a Third Grade County Certificate, and in most of the subjects required for a State Professional Certificate good for life in Nebraska. These courses are open to any and all teachers who register for the desired work on or before February first—in no event late than February fifteenth. Hundreds of teachers should take advantage of this opportunity. It will enable many teachers who now hold only a Third Grade County Certificate, to earn a Second Grade County Certificate; and many teachers who now hold Second Grade County Certificates, to earn a First Grade County Certificate; and many teachers who now hold Second or First Grade County Certificates with only "passing grades" to earn a "With Credit or "With Honor" Certificate, by the time of the regular teacher's examination in June, 1909. It will give opportunity to the holders of First Grade County Certificates who desire to earn passing grades in four of the subjects required for a Life Certificate and at the same time renew their First Grade County Certificates without examination.

There are hundreds of teachers who now lack only one or two studies of being entitled to a certificate of the next higher grade above that now held. Each teacher who wishes to undertake this special Correspondence-Study, should select the subject or subjects in which instruction is desired and write the director of the University Extension, Lincoln, Nebr., for application blank. The teacher should fill out the blank upon its receipt with the information called for and return it to the office of the Extension Department, Lincoln, Nebr. For the benefit of the Department, it is desired that the applicant state fully the purpose he has in view in taking the work and also in detail such educational advantages, training or experience as he may have had. The Department will endeavor to meet the needs of the individual student-teacher by advice and suggestion as well as by formal instruction, but whenever it is found that the course selected is not for the best interest of the student, it reserves the right to reject, to advise change or discontinuance of work.

A majority of the subjects offered in this course will be carried at least one semester. However, teachers whose experience, qualifications and ability in Correspondence-Study, make it possible for them to finish the course in nine weeks in

such subjects as arithmetic—mental or written or both, reading, geography, English composition, grammar, physiology, bookkeeping and drawing, may have that privilege.

University Credit Courses

Persons who have had the required preparation for admission to the University, will, upon satisfactory completion of a Correspondence Course of Study designed for credit, be awarded a certificate of credit in the University. It is, however, provided that all credits thus earned shall be subject to the same provisions as are made in the University of Nebraska, subject to the action of the Committee on Accredited Schools, or the Committee on Advanced Standing, as the case may require.

All courses offered by the Correspondence-Study Department, whether taken for University credit or not, are on a uniform basis in reference to the amount of work offered. Courses which are satisfactorily completed, have, therefore a definite value, and all students who successfully complete such courses, will be awarded certificates of the grade in which they are taken.

A Special Study of Abraham Lincoln and His Times

Since 1909 is the Abraham Lincoln Centennial year, several persons have expressed a desire for a special Correspondence Course of Study on Abraham Lincoln and His Times. Such a course is altogether fitting and proper. Never in our times, will there be such an opportunity for a study of the life, character and career of the "First American." This course begins February 1, 1909, and continues one semester.

The text-books recommended for this course are Morse's two volumes of Abraham Lincoln, in the American Statesmen series. Every teacher of American History in Nebraska High Schools who has not already made a special study of Abraham Lincoln, can hardly find a more profitable course of study. It offers splendid work for University Centers, Women's Clubs, Teachers, Students and Citizens throughout the State. Teachers who properly complete this course may earn, not only a grade in American History for certification, but also two hours' credit in American History in the University proper.

The Plan as Recommended by the Senate Committee on University Extension

For all who register for Correspondence-Study on or before February 1, 1909, in no event later than Februray 15th, it is hoped that the University of Nebraska, through its Extension Department, may be able to offer:

First: A Correspondence Course of Study in all of the subjects required for County and State Certificates. The final examination of those taking the special course for teachers will be under the rules and regulations governing the certification of teachers in Nebraska.

Second: A Correspondence Course of Study for University credit, including work in as many Departments of the University as may be equipped to undertake the work at this time, and ultimately in every Department of every College of the University, will be offered. Only a certain portion of the unit hours required for graduation from the University may be taken in Correspondence-Study, but teachers or other students who have the proper entrance requirements, who cannot enter University classes except during vacation, may acquire the remaining portion of their credit by attending Summer School sessions. (See Foot Note No. 1.) No credit will be recorded on the University books, however, until the student has accomplished satisfactorily the required amount of work in residence. It is also provided that all credits thus earned, shall be subject to the same provisions as are made in the University of Nebraska, subject to the action of the Committee on Accredited Schools or the Committee on Advanced Standing, as the case may require.

Instruction: Lists of books, assignments for reading and all necessary assistance will be furnished throughout the course so that no student will be left without adequate aid and guidance.

Expenses and Fees: The fees for Correspondence-Study will be put upon the lowest operating basis possible. The motive is public service. The cost for any course will be made known upon application as well as in a subsequent circular. It is hoped that such fees may not exceed seven dollars and fifty cents ($7.50) per subject per semester. For the Teachers' Course five dollars ($5.00) per half semester or eight dollars ($8.00) for a double subject. (See Foot Note No. 2.)

Miscellaneous Notes and Suggestions

Any course may be paid for in pro rata monthly payments when a student finds it necessary. Under this plan the general rule of payment in advance applies. No extra charge is exacted for a course where payments are made by installments.

All fees for Correspondence-Study should be remitted direct to Secretary J. S. Dales, Station A, Lincoln, Nebr. No fee is refunded to any student who does not complete the course for which he has once registered. If an application for instruction is rejected, the fee is returned.

All text-books necessary for the work desired

Foot Note No. 1: Only one-half of the unit hours required for graduation may be taken in Correspondence-Study, but teachers or other students who cannot enter university classes except during vacations, may acquire the remaining half of their credit units by attending summer school sessions. No credit is recorded on the University books, however, until the student has accomplished satisfactorily an equivalent amount of work in residence.—Wisconsin Rule.

Foot Note N. 2: Those who will investigate the fees charged by other state universities, private schools and colleges for CorrespondenceStudy will find that the University of Nebraska has undertaken to do University Extension work at a lower cost to its students in the Extension Department, than has ever been done before in this country, and at the same time not lower the efficiency of the instruction given. The fact must be borne in mind that the correspondence student is usually engaged in a gainful occupation or profession, whereas the resident student temporarily suspends his earning power. The correspondence student may also be said to be turning his leisure time into economic values by this method. These and many other factors contribute toward establishing this as an inexpensive system of achievement an education.

may be bought from the Purchasing Agent, Mr. E. H. Clark. Station A, Lincoln, Nebr., at cost. The student may purchase direct from the publisher but it will expedite matters for those who take the work, as well as for the Extension Department, to deal direct with the Purchasing Agent of the University, and in nearly every case it will be cheaper for the student so to do, as the University can secure all books at wholesale price, while the student could only obtain retail prices.

Upon receipt of application and fee, lessons will be sent with instructions for study, methods of preparation and directions for returning lesson sheets and reports. In those subjects which may be completed in nine weeks, in the special course for teachers, at least two written tests will be required before the final examination. In those branches which must be studied at least one semester, four or more written tests will be required before the final examination. Each written test submitted will be returned to the student with such corrections, explanations and suggestions as may be needed.

It is assumed that this work may be done by the average student in eighteen weeks on a minimum leisure for study of one hour and a half per day, six days in the week. It is, however, the student's privilege to pursue his studies as rapidly as he is able. If for reasonable cause the student desires a reasonable longer time in which to complete the semester's work, this may be granted, but in no event will the student be given more than one year from the date of registration, in which to complete one semester's work.

All students taking correspondence work are cautioned against trying to carry too much work at one time. When the student is overburdened by regular daily duties and Correspondence-Study, University Extension work will become a punishment and a detriment rather than a pleasure and an inspiration as it may when a reasonable amount of work is undertaken.

Where the student is taking Correspondence-Study to prepare for the examination for a teacher's certificate, the final examination will be given under the rules and regulations governing the County Teacher's Examination, and will be conducted by the county superintendent or by the city superintendent of Normal Training High Schools. This will place the examination within easy reach of every teacher taking the work. Where the final examination is taken for University credit, it will be given under the authority of the University of Nebraska and will be conducted by county superintendents, city superintendents and high school principals throughout the State as representatives of the University. This makes all examinations especially convenient for all who may be taking Correspondence-Study.

A Matchless Opportunity for Progressive People

These courses in Correspondence-Study, given by the Extension Department of the University ofNebraska, offer a matchless opportunity to all progressive teachers, students and citizens throughout the State. The fees are twenty-five per cent lower than those charged by the University of Wisconsin; at least thirty-three per cent lower than the fees for Correspondence-Study charged by the University of Chicago, and over fifty per cent lower than the fees charged for such work by private correspondence schools.

Those who wish to take advantage of these opportunities for Correspondence-Study in the Extension Department of the University of Nebraska, should write at once to the director of University Extension, Station A, Lincoln, Nebraska, for application blanks and all desired information. Time, to such persons, is more valuable than money. They should seize this opportunity for self-culture. Let county and city superintendents, high school principals and all teachers throughout the State, assist the University in bringing University Extension work to the attention of every person in Nebraska, who can and should, profit by this wonderful movement—not for the sake of the University, but for the benefit it will be to the people themselves.

"Instruction by Lectures," "Debating and Public Discussion" and "General Information and Welfare," have already been discussed briefly in the January numbers of the Nebraska Teacher and the Nebraska School Review. The work of these Departments will be set forth in a future number of this journal. University Extension is for the benefit of all the people and must be comprehensive both with reference to including the work of all departments of the University proper, so far as practicable, and in covering the widest possible range of study of all questions that concern the people of the commonwealth. Its purpose is clearly set forth in Professor Caldwell's report to the Chancellor and Regents, made April 18, 1908:

"To investigate all problems—artistic, literary, historical, social, industrial, moral, political, educational—problems of sanitation, city lighting, sewerage; banking, crises, money, divorces, etc. —in fine, all problems that may concern the citizens of Nebraska."

For further information relative to any question concerning University Extension work, write the Director of University Extension, Station A, Lincoln, Nebraska.

THE CONSERVATION OF OUR NATURAL RESOURCES

(From an address by Dr. G. E. Condra before the National Commission, Washington, D. C.)

It has been my privilege and duty during the past fifteen years to study the geography and economic geology of our state. This experience has caused me to reach conclusions pertaining to Nebraska's resources and possibilities. Our state is large, diverse and, as a rule, rich. It has large areas of both fertile and poor land. Forty thousand square miles of an agricultural region in the east and south counties, being eight times the area of Connecticut, is well developed, with its land ranging from $75 to $150 per acre in value. The day of homesteading has long since passed in this part of the state. Now its landscape presents a continuous view of alfalfa, wheat, corn and modern farm buildings.

Lying to the north and west of our most prosperous agricultural area are about twenty-thousand square miles of sand hill country, covered for the most part, with a thin stand of native grasses. I know that 640 acres of the average of this will

not support an American family. If this statement is correct, then, the senator who wishes to restrict homesteads to 320 acres in this locality is probably wrong. The soil contains little humus; it is not strong. There is a lack of the necessary elements and conditions for the successful growth of the common crops. Grazing is the leading industry, and for this purpose the region is moderately-well occupied, most of the hay flats being deeded land.

The western part, occupying more than twelve thousand square miles of the high plains region, is good and bad. It is a place where the influences of rainfall, structure, soil-texture and irrigation water are most marked, and the home of the various forms of reclamation. I can take you to certain localities in this region where good crops of wheat, oats, alfalfa and potatoes are produced under a low rainfall without irrigation. It is where the soil is close-textured and deep. Popularly such cultivation is known as dry farming. Near these fertile places occur sandy soils, underlain by bedrock near the surface, on which crops do not withstand drouth. Some of this land is better adapted to grazing than to any other purpose. Notwithstanding this fact, the native sod on many acres of this strictly grazing land has been turned by would-be farmers. In marked contrast to these high, dry, sandy lands are the many thousands of acres now in successful irrigation, especially along the North Platte.

Our first duty along the line of the conservation of land resources in Nebraska is to obtain a deep insight into the agricultural conditions and possibilities of each of our four soil regions. Our second duty, sometimes an unpleasant one, is to tell the exact truth of these conditions and possibilities so that homesteaders and homeseekers, mostly from the East, may come knowingly into their new environs and adapt themselves accordingly. Grave misfortunes result from the settlement of an unfavorable region by an agricultural people. Too many citizens now leave their fertile fields and happy homes, through ignorance and misrepresentation, and find their way to places where the possibilities of disappointment and failure are altogether too great. The federal government should investigate and make known both the favorable and unfavorable conditions that maintain on public domain, preceding settlement. Each state in co-operation with the federal government should investigate and publish for the free use of its citizens something concerning the nature, efficiency, possibilities and impossibilities of each class of land now occupied, so that farmers may have a proper basis for farm management, leading to the conservation of soil fertility, a thing which is necessary for the future of our agricultural industries.

Permit me to say a word in regard to the supposed increase in rainfall and the westward movement of the rain belt, discussed by the gentleman from Minnesota. This subject comes close to home to persons living in western Nebraska. Four times, during periods of heavy rainfall, coming at intervals of eight to twelve years, have the people of Nebraska and adjacent states moved onto high, dry lands, believing in the fallacy of an increasing rainfall. The experiment has proved a costly one, resulting in the establishment of a permanent agriculture only in the most favored places. The facts are, that there is fluctuation in rainfall, but no permanent increase. It returns to about the same mean if we average the wet and dry periods. However, we have learned that the amount of rainfall is not a sure check or control of agricultural development. The climate of the soil, not of the air, is more important. This varies with soil type; is related to the quantity of rainfall, and affected by cultivation and the kind of crop. This changed climate of the soil, resulting from cultivation and other conditions, probably is what most people mistake for an increasing rainfall.

The fluctuation of rainfall prevails throughout most states, but the effects are most marked in the dryer regions, as in parts of Nebraska, Kansas, Wyoming, Colorado, New Mexico, Oklahoma and Texas. The phenomenon has a close relation to farm management and to the agricultural practicum on the least drouth resistant soils of these states. Let us meet the problems of soil conditions and of climate, as such, with a farm management that is suited to the nature of these conditions; for these, and other related factors must be reckoned with in the establishment of permanent industry in that part of the country.

As regards conservation work in Nebraska, our governor has appointed a commission composed of scientific men actively engaged in a study of the state's natural resources. Most of these men head departments in the University of Nebraska. They are free from politics and in a position to stand strongly for any policy that may seem best for the permanent good of the state. They will work along the line of our leading interests, which are largely agricultural. They will study the conservation of soil fertility of rich farm land, soil erosion, crop rotation, and the proper management and utilization of flood lands, steep slope lands, sand hill areas, bad lands, and the high plains areas.

Nebraska is large enough and rich enough in her agricultural resources to stand on her own bill of facts, without any attempt to overdraw her possibilities. Her citizens believe in research. They understand the importance of co-operation, and the economic utilization of our natural resources, both state and national. To this end they join heartily in the great movement in which we are engaged.

Commenting on the stand the University has taken against "freakish" events, the Kansas City Journal says: "By far the greater number of students in the colleges and universities of the country are the sons and daughters of parents who belong to the so-called middle classes. In a great many instances it means no small sacrifice to send their children to a higher institution of learning, and anything which interferes with making the most out of the college course should be suppressed. Frivolity is hardly less out of place than rowdyism, and Chancellor Andrews is acting wisely in compelling his students to 'tend to their knitting,' duly mindful at the same time of the fact that there is both time and need for reasonable pleasures."

Syracuse is building the largest gymnasium in the world, at a cost of $500,000.

The University Journal

PUBLISHED MONTHLY
By the Teachers' College of the University of Nebraska

Entered April 13, 1906, at Lincoln, Nebraska, post-office as second-class matter, under the Act of July 16, 1894.

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Summer School—Paul H. Grummann, Director Summer School, the University.
University News—E. H. Clark, Purchasing Agent, the University

President L. D. Harvey of the National Educational Association has appointed the following persons as members of the Committee on Co-operation to assist the State Director in enlisting the interest of school people in the meeting of the National Department of Superintendence at Chicago, February 23-25, and of the National Educational Association at Denver, July 5-9.

Superintendents Geo. D. Carrington, Jr., Auburn; Geo. Burgert, Kearney; D. W. Hayes, Alliance; Chas. W. Taylor, McCook; J. M. Matzen, Fremont; S. H. Thompson, Hastings; J. R. Fulk, Hebron, and J. A. Doremus, Madison.

A program of more than usual interest has been prepared for the meeting in February. Among the topics to be considered are: "The elimination of Waste in School Work," "The Schools in Relation to Character Building," "The Problems of the Delinquent Pupil," "Articulation of Higher Educational Institutions with Secondary Schools," "Industrial Education," "Hygiene of the Public Play Ground."

In conjunction with the meeting of the National Department of Superintendence will be meetings by the National Society for the Scientific Study of Children, the Society of of College Teachers of Education, and the National Committee on Agricultural Education, all of which have interesting programs.

With the meeting of the National Educational Association at so convenient a point as Denver, the teachers of Nebraska should plan to attend in large numbers. In order that it will be convenient for them to do so, county superintendents and those in charge of summer schools, should plan to leave the week of July 5-9 free. It would be a matter of courtesy to this great educational gathering to have no institutes that week. Where summer schools extend over that time, provision should be made so that all who desire can attend this meeting as a part of the work of the session. This provision has already been made in the case of the summer school of the University of Nebraska.

Dean Fordyce of the Teachers' College, is conducting a course this year in school organization and administration that is filling a long-felt need in Nebraska. The course embraces, first, a study of the organization of the public school system of the United States from its genesis to the present and, second, a consideration of the educational problems that confront the superintendent and the high school teacher.

Nearly fifty of the leading superintendents and principals of the State are enrolled in the class, which devotes a half day once in three weeks to a conference at the University.

The course is outlined in a syllabus which calls for a critical study of recent texts on the administration of public education in the United States, together with a careful review of the leading contributions made to the Reports of the Commissioner of Education, the Proceedings of the National Educational Association, Special Circulars of Information of the United States Bureau of Education, Educational Review, Education, and other current educational literature.

The dominance of memoriter methods of instruction is nowhere more unnecessary and nowhere more deplorable than in mathematics. True it may be that here as elsewhere facts should precede reasoning,

but the facts should come as much as may be from observation. There is no better teacher of the addition table, for example, than a box of dominoes. The knowledge gained by merely playing with these can be afterwards at once systematized and visualized by means of the five-pointed star at whose ten corners are placed in order the ten digits. The star will be found to lend itself beautifully to exercises of counting by two's, three's, and so on, whether forward or backward. Nor would it be surprising if some of the children were to find out the relations between counting by one's and by nine's, by two's and by eight's, by three's and by seven's, and so on. The teacher should be cautioned against carrying this too far or dwelling upon one sort of exercise too long. Keep giving the child something new. If he forgets a lot, so much the better; the old will then be as good as new to him and be grasped with a fresh interest and an active mind. Especially is this the case if he keeps finding things out over and over again by his own unaided self. Only keep the mind active and development will never be arrested.

When the time comes to systematize the child's ideas of multiplication let him make his own tables in the square form, first up to only three times three, and for quite a while not beyond five times five. The tables can be left on the blackboard until without conscious effort they become visualized.

Geometric exercises can be profitably mixed in with the arithmetic. The various little books on observational or inventional geometry furnish lots of material for this, but live teachers can improve upon them.

I here suggest a few exercises:

Draw variously shaped triangles. Draw triangles whose sides are 3, 6, and 8 inches in length; 4, 5 and 7 inches. Can you draw one having its three sides of any length you please? Try 4, 5 and 10 inches.

Why does folding a piece of paper give a straight line?

Fold a piece of paper so as to get a square corner; so as to get a square; so as to get an equal-sided triangle; so as to get a regular five-sided figure. This last looks hard but is really very easy. When the child is older he can find out the why of it. Use the regular five-sided figure to make a regular five-pointed star. Fold a paper so as to get a regular six-sided figure. Invent paving designs in colored chalk.

This will keep the children busy and they need never be conscious of memorizing.

ELLERY W. DAVIS.

CARNEGIE PENSION FUND

What is the state legislature to do with the Carnegie Foundation question when it comes up from the State University?* Mr. Carnegie has created a fund of fifteen millions to provide pensions for university professors on their retirement. Of this amount five millions is exclusively for the use of state universities, which may benefit by it only, however, if the legislatures of their respective states sanction the course by formal joint resolution.

The pension provided is generous. It flows from the fund automatically. That is, no one can say that this professor shall be pensioned and that one shall not. Every professor, who has taught for fifteen years, retiring at the age of sixty-five or more, is entitled to his pension, and the pension, in the majority of cases, depending on his salary, will amount to about 75 per cent of the salary he drew. Nebraska already pays her professors an average of $400 or $500 less than other state universities of the first rank pay. It is believed that all these competing state universities will be permitted to accept the benefits of the Carnegie Foundation. If they are, and Nebraska is not, it will mean that a professor, say fifty years old, who may expect to live till seventy-five, retiring at sixty-five, will realize 50 or 60 per cent more out of his services if given to one of these other universities than if given to Nebraska.

This is the situation that confronts the legislature. One of three courses may be adopted.

The University may be authorized to benefit by the Carnegie fund.

The permission may be withheld and salaries may be raised to such an extent as would approximately make up for the loss. This would require additional appropriations of about $100,000 a year.

The permission may be withheld and salaries left where they are. This would mean that Nebraska would be hopelessly handicapped in the struggle for competent professors; that in a very few years she would lose the cream of the present faculty; that, through the resulting inferiority in faculty, our State University would speedily be degraded from a university of the first rank to one of the second or third rank.

The adoption of the last named course the World-Herald believes would be highly unfortunate. It would amount almost to an educational disaster in Nebraska. It would cause the deepest regret not only to the alumni and friends of the University, but to Nebraskans generally who are proud of our splendidly successful educational system.

The choice recurs, then, to allowing the salaries

of our professors to be raised out of Mr. Carnegie's fund, as the salaries of professors in other universities will be raised, or to raising those salaries by levying an additional tax on the people of the state.

This newspaper is very frank to say it would prefer to see the salaries raised by the people. This is Nebraska's university, and Nebraska should support it. Especially should Nebraska pay the salaries. It is fundamentally and eternally wrong that public officials—and state university professors are public officials of high rank—should have to look in part to private beneficence to pay them for their public services. No amount of specious argument can get around this proposition, and it is true even if, as in this case, there is little suspicion of "taint" attached to the private benefit, since it is automatically administered and has passed wholly out of the control of the great steel magnate who provided it. The World-Herald could wish that all the states would join with Nebraska in saying they are able and willing to support their own public schools and pay their own officials.

But there is no likelihood of this being done. If Nebraska stands out she will in all probability stand out alone. And in that event she must look on while the State University is degraded from high rank to low rank, or must furnish an additional $100,000 annually for university salaries.

This problem, it is almost certain, will soon be laid before the legislature. In the World-Herald's judgment it presents a question among the most important, both practically and theoretically, of all those with which the legislature will have to deal. —Omaha World-Herald.

The Bee unqualifiedly favors the University of Nebraska perfecting its right to share the benefits of the Carnegie Foundation.

When this fund was originally established under conditions which excluded state universities, the Bee entered a vigorous protest against the injustice and, we believe, this protest had something to do with procuring the additional endowment to take care of instructors in state institutions. The trustees, however, have laid down certain rules requiring application from the governing board of each university, endorsed by the legislatures of the various states, respectively, in order that they may not be put in the light of giving help where no help is wanted, and, therefore, if Nebraska is to be put on the accredited list it must conform to this requirement.

The lawmakers and the people should not be confused as to the Carnegie Foundation. It is a pension fund pure and simple for superanuated university and college professors. It has absolutely nothing to do, except indirectly, with the salaries of faculty members engaged in active work of instruction. It will devolve upon us to provide the salaries for our university professors whether Nebraska qualifies for the Carnegie Foundation or not. But if service in our University is to disqualify a professor from the benefits of the Carnegie Foundation we will naturally have to put up with poorer quality or offer higher inducements in the way of salaries or a state-provided pension fund.

The fear that the prospect of Carnegie pensions will influence the individuality and freedom of teaching in the state universities is a mere pretense. If we have that sort of cravens in the Nebraska faculty the sooner we get rid of them the better. There is no more "danger" or "degredation" to the University in permitting its superannuated professors to enjoy Carnegie fund pensions than there is in accepting the money which William J. Bryan puts up annually for prize essays on civil government.—Omaha Bee.

The students from Boone county attending school in Lincoln have an association that holds regular meetings for social purposes. The executive committee consists of Miss Jennie Barrows, Miss Verdie Dyar and Mr. A. M. Hare. This is an excellent idea, worthy of general imitation.

INTER-COLLEGIATE DEBATES, 1908.

M. M. Fogg

The University of Nebraska won from the University of Illinois and lost to the University of Wisconsin on December 11 in the third annual contest of the Central Debating League, composed of the universities of Iowa, Illinois, Minnesota, Nebraska and Wisconsin. The proposition discussed by the ten teams—the affirmative team being at home in each case—was: "Resolved, That American cities should adopt a commission form of government." The members of the Nebraska teams were appointed the middle of November by a committee composed of Prof. L. E. Aylsworth, Prof. H. W. Caldwell, Prof. E. B. Conant, Prof. M. M. Fogg, Prof. J. E. LeRossignol, and Prof. Edwin Maxey.

Governor George Lawson Sheldon, '92, presided at the Nebraska-Illinois debate in Memorial Hall. Nebraska's representatives were James E. Bednar, '06, Law '10, of Wymore; Ross W. Bates, '09, Law '10, of Springfield, and Dean Driscoll, '05, Law '11. George W. White, '10, of Salem, Oregon, was appointed a member of the team, but temporary illness compelled him to withdraw the Monday before the debate, Mr. Bednar taking his place. The members of the Illinois team were S. M. Thompson, '09; R. B. Fizzell, '10, and J. C. Herbstman, '01, Law '09. The judges were from Iowa—Hon. H. E. Deemer, of Red Oak, justice of the Supreme Court; Prof. Isaac H. Loss, director of the School of Political and Social Science, University of Iowa; and Hon. Parker K. Holbrook, of Onawa, regent of the University of Iowa. After the debate the Phi Alpha Tau society gave an informal banquet to the Illinois team, Mr. E. H. Halliday of the Illinois faculty, the judges, and Governor Sheldon. Herbert W. Potter, '10, of Omaha, was business manager of the debate.

At Wisconsin, Nebraska was represented by Joseph T. Votava, '10, of Edholm; John Rice, Law '10, of McCook; and Stuart P. Dobbs, '09, of Beatrice. The Wisconsin debaters were Gustave W. Bucken, '09; M. Montifiore Apped, '10; and George Blouchard. The judges were Dean E. B. Green, professor of history, University of Illinois; Prof. J. W. Garner, associate professor of Political Science, University of Illinois, and Hon. Edward T. Young, attorney general of Minnesota.

Members of the Nebraska faculty who served as judges of other contests in the League spoke on those debates to the Intercollegiate Debating Squad, Tuesday, December 15. Prof. H. H. Wil-

son, of the College of Law, and Dean H. B. Ward, of the College of Medicine, reviewed the Iowa-Wisconsin debate at Iowa City, where they and Judge S. H. Sedgwick, of York, gave Iowa a unanimous decision. Prof. W. G. L. Taylor, head professor of political economy and commerce, discussed the Minnesota-Iowa debate at Minneapolis, which Prof. Taylor, Prof. George E. Howard, head professor of political science and sociology, and Albert Watkins, Esq., of Lincoln, gave to Iowa by a two-to-one vote. Prof. Edwin Maxey, of the College of Law, who accompanied the Nebraska team to Madison, spoke on the Nebraska-Wisconsin debate.

In the fourth annual debate of the League on December 10, 1909, Nebraska will meet Minnesota for the first time in Lincoln and Iowa for the first time at Iowa City. The question will be selected by vote of the five universities early in April, and at least part of the appointments to membership in the Intercollegiate Debating Squad will be made early in May.

A HIGH SCHOOL GERMAN CLUB

Miss Abbie W. Bowen, Omaha High School.

The "Deutsche Verein" of the Omaha High School was organized about six years ago, to remedy, so far as possible, a fully recognized deficiency in our class-room work. We appreciate that the only way to learn to speak a language is to speak it. The need for outside German is obvious.

Our Verein is open to any pupil in the department, also to any other high school pupil who reads or speaks German. Meetings are held for an hour each Wednesday after school. They are conducted entirely by the officers whom the members elected from their number. German is not used in conducting the business of the club. These Wednesday meetings are devoted alternately to the rendition of literary programs (with music furnished by the individual members and by the girls' chorus), and to the singing of folk-songs by the club as a whole.

The material presented is of various kinds, the aim in selection being always the simplest possible expression, and usually of every-day idioms. Single recitations of course are frequent,—we are reduced now to frantic search through readers, text-books, etc., and have found many good things in modern publications, of which I have made a partial list. A number of Goethe's shortest lyrics and ballads have met, seemingly, with appreciation, at least from the older students. Very short stories, anecdotes and jokes are memorized and retold. Riddles are told for the club to guess. Readings are given sometimes, short biographies of authors whose poems follow, or a simply told prose version preceding the rendition of a famous poem or song. Glück Auf furnishes excellent material for this purpose. One day an arithmetic lesson at the blackboard furnished much amusement; once or twice also a simple talk on the geography of Germany has been given, with map and pointer. Apropos of geography, we have had one program in English during my four years in the Verein,—a stereoptican afternoon, when views of Germany were shown to illustrate Rhine legends told by the pupils, a description of market day in a German town, an account of Heidelberg and the student life there, and a capital talk on old Nuremberg, its walls, moats and quaint houses.

We have discovered, however, that a diet of recitation palls, and are doing more and more along the lines of simple dramatics, finding that action makes the strongest appeal to the interest of our audience. So we have seated a girl in peasant costume at a spinning wheel to recite Martin Greif's "Frau Holle." "Kind und Bächlein" makes a pretty dialogue. We have staged questions and answers from the chapters on shopping in Kern's "German Daily Life" and in Lambert's "Alltägliches."

A good many simple plays have been presented before the club. In Bacon's "New German Course" there are a few twenty-minute farces, introducing various amusing every-day types, which can be costumed (with a few kerchiefs and aprons) to the satisfaction of everyone. "Der Weiberfeind" has good fun in it,—and quite a touch of sentimentality. "Backfischchens Geheimnis" portrays a love-sick school-girl whose three friends tease her mercilessly about the young English master. It was played before the Verein this fall by four girls beginning their second year of German, in so spirited a way as to elicit many spontaneous ripples from the audience. "Der Tisch ist Gedeckt" introduces three couples whose squabbles over a trifle are funny. "Versalzen" is another spicy little play—this rather longer, and involving too much preparation for any ordinary meeting, but was given once at a special open meeting.

So far I have mentioned material that may be called trivial. It is, intrinsically; but for our purpose,—the purpose of vivifying the language to beginners, of showing them that it does not belong entirely between the two covers of a book, and of convincing them that there is a possibility of getting fun and pleasure through its medium,—such plays, simple in structure, language and idea, and exemplifying modern coloquial idiom, are what we want. And the classics are used also. As I have said, many of the shorter poems of Goethe, Schiller and Heine are given. The first scene from Minna von Barnhelm goes capitally, and the garden scene from Maria Stuart is very effective. The shooting scene from Tell is also admirable for presentation.

The material so far mentioned has been utilized in regular Wednesday programs. At Christmas time we attempt something more festive. Last year the first part of our program consisted of Christmas poems and dialogues given in peasant costume and interspersed with vocal and instrumental music. The second part was a little play, "Der Weihnachtstraum," found in the "Kinder-Theater" division of Steiger's immense catalogue. At the end of the play the Weihnachtsmann himself appears, with a great knapsack from which he dispenses goodies to all the audience. On another Christmas program the excellent picture of a German Weihnachtsfest was read, while on the stage the scene was enacted, with the singing of the Christmas songs at the proper points.

So much for the literary work done by the Verein. This we feel is fully equalled in importance by the work of the alternate Wednesdays,—the singing of Volkslieder by the whole club. Our books,—two volumes bound together, at a total

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*This paper was read in the German section at the late State Teachers' Association and called forth a great deal of favorable comment. —Editor.

cost of about twenty-five cents each,—contain over two hundred two and three-part songs. When a song is first taken up, the words are read by the leader,—one of the teachers,—and repeated by the club. We try to follow the seasons with appropriate songs—Herbstlieder, Weihnachtslieder, Frühlingslieder; but throughout the year we sing over and over the songs which reflect so truly the German spirit. We feel this music to be as valuable as any work which could be done by the club. The most timid freshman makes a bold dash at his words, sure that his blunders will not be heard. And after he has sung these songs many times, he has learned not only to know them as German, but to love them and, we are convinced, to get through them a true and vivid perception of what we term German sentiment. The other day, in the senior German class, the topic in the history of German literature was the development of the Volkslied. The text barely mentioned the various types,—the nature-song, patriotic-song, love-song, etc.—and as I called for examples of each type the pupils' faces shone, and they were ready with answers from among the list of their familiar favorites. "Which do you like best?" I asked. "Ach, wie ist's möglich dann"—was the quick reply, and the class vibrated with pleasure at the remembrance. They really knew the meaning of a Volkslied, and felt its significance.

Sources of Material Used

SONG-BOOKS

1. Lieder-Buch für Schüler (15th ed.)
   A—Unter und Mittelstufe
   B—Oberstufe. Stade, 1903.
2. Deutsches Lieder-Buch (Wisconsin Germanistische Gesellschaft). D. C. Heath, 1908.
   [Tonger's 100 Volkshieder, (35c); G. E. Stechert New York, is also an excellent collection.—Editor.]

SINGLE RECITATIONS

1. Bern—Deklamatorium. Phillip Reclam, Jr., Leipzig.
2. Glück Auf—Wenckebach.
3. Becker—Elements of German; Scott, Foresman & Co.

PLAYS, ETC.—

1. Kern—German Daily Life (Newson Co.) Material for dialogues.
2. Lambert—Alltägliches—(Heath, 1908.)
3. Bacon—New German Grammar. Merrill Co.
4. Branne, E.—Bachfischchens Geheimnis (and other short plays). Kühling & Gottner; Markgrafen Strasse A, Berlin.
5. Steiger, E.—Catalogue, very complete; 25 Park Place, New York.

LITERATURE AND THE CURRICULUM

Sherlock B. Gass

It is purposed here to make a brief inquiry into the essential nature of literature in order the better to understand its relation to the curricula of the college and secondary schools. The general conception of what literature is seems vague in the extreme. There is, however, a common element in almost all its misconceptions. Most persons would, for example, make a distinction between the Bible and literature, feeling that the Bible is a record of sacred truth, but that literature is something rather to amuse, to entertain—the opiate for weariness, the escape from serious problems. Serious scholars of history, sociology, economics, and philosophy take pride in a scientific method in their work which they are pleased to contrast with the "merely literary." Analysis shows that the "scientific" in their method is simply diligence, patience, high integrity, and sane judgment. If for them the "merely literary" is qualified by the lack of these qualities, literature for them can be little more than a form of amusement. It is a matter of observation that men of this type are coming more and more to disseminate this idea among their students—that literature is a form of play. And these misconceptions are not without confirmation among those who profess literature itself. For all those teachers whose concern is only with the emotions of literature, and all those belles-lettrists and analysts whose concern is with the minutiae of literary method, do nothing to change the attitude of the student or the scientifically trained scholar.

It is difficult here in Nebraska, where our university has very largely turned into a group of normal, professional and technical schools, to speak convincingly of the purely cultural function of the college. With respect to the secondary schools it is an easier matter, for they are almost altogether cultural. This cultural function of the college and schools is in danger of being lost sight of—is so nearly lost sight of that the very term "cultural education" carries with it little suggestion beyond kid gloves and elegant aloofness. The real purpose of this education, however, is the highest cultivation of the human spirit, for highly cultivated spirits are the greatest assets of our civilization. This high cultivation is to be attained only through the students' thorough assimilation of the knowledge and wisdom that makes our civilization what it is. To stimulate and guide this assimilation is the function of the college. A course calculated to accomplish this must necessarily be at the other extreme from specialization. Its purpose should be to broaden and deepen the conception of life of its students, not to train them in a single technique or a single branch of knowledge at the expense of others. The goal is virtue and wisdom rather than power or efficiency.

But those who believe in the study of literature will readily fall in with this idea of the cultural education, for it is only in the cultural education that literature can find a place. It can serve no end in technical or professional courses except culturally; and in normal courses, though it may be used otherwise, yet the purpose to which it is to be put when the student himself teaches is cultural.

Keeping in mind, then that the function of the college, and in a more elementary way of the school, is to guide the student in the assimilation of the knowledge and the wisdom of the past, let us consider the essential nature of literature in order to discover its right relation to this function. First let us get rid of two incumbrances. By "literature" let us mean what De Quincy called the literature of power—essays, poems, plays, fiction. Further let us limit the term to that literature which has stood the test of time. Some limitation here is necessary. We cannot be cumbered with the appalling output of the press today, only a modicum of which will survive the decade. It is not to be supposed that with the marvellous increase in the volume of publication there has gone a corresponding increase in the number of wise and trained men

to produce real literature. What of all this mass will be sifted out time only can tell. So without hesitation we may simplify our task by depending upon what time has already told, and consider as literature that product that still persists, of more than a quarter century ago.

What then is the essential nature of this literature? It will be simplest to say bluntly that **literature is essentially a record of truth.** Let us examine the grounds for so dogmatic a statement. We have already considered the sifting power of time upon the literary product. What is the mesh of that sieve woven to catch? If we find that every quality but one passes through, and that one quality, if it is pure, or if it is not submerged in other baser matter, catches, may we not say that this quality in the sifted product is the essential thing, the thing for which it exists, the thing for which it endures? And what is it that does catch and stay within the sieve? What is it, to be concrete, that makes a novel live? To answer bluntly, it is truth—truth to human nature, to human probabilities. What makes a play live? Truth to human character and human passions. In a poem it is truth to human emotional perceptions. Let us say typically of the Canterbury Tales that they persist and are of value because they keep faith with individual human nature, and are still more valuable because they reveal much of collective human nature in one of its most striking periods. And this may be said in varying degrees of every great piece of literature that has been retained in the truth-catching web of time.

The essential fact of literature is that it says something; the essential fact of permanent literature is that it says something true. The great writer writes because he has something to express. He is driven to the expression he adopts by his conception of the idea he is to convey. For the college student, then, whose energies are to be devoted to the assimilation of as much of the world's wisdom as possible, what is important is the idea that is conveyed. It is because literature does convey ideas, does reveal truths, that it has a place in the curriculum. I need not enlarge upon the inestimable value, in such an education, of the particular kind of knowledge and wisdom that is to be gained from literature. I need only further point out that **it is the whole function of the teacher to guide and stimulate the student in the assimilation of that knowledge.**

If I may, by a flight of fancy, suppose that what I have said would incline those whose literary concern is with the minutiae of literary methods and phraseology to defend themselves, I may, by a flight of imagination, suppose the gist of their defense to be as follows: They will agree that the function of that part of the curriculum to which literature belong is cultural, that this culture is attained by assimilating the wisdom and knowledge of the past, and that the great fact of literature is that it says something. But, they will say, the only way to learn to appreciate the truths revealed in literature is to study the method of the writer, to study the devices he uses to produce the subtle values of his revelation; consequently these must be the great center of attention in the study of literature.

Here at last, then, is the crux as between those who believe in throwing the emphasis of their teaching upon the ideas, and those who believe in throwing it upon the methods, of literature. I am not over-confident that this is the real crux. I am not over-confident that those who emphasize method and phraseology really believe that the great fact of literature is that it has ideas to impart. Certainly their students do not get this conception. They are firm in the conception that literature is method, that style is an end in itself instead of the simplest, clearest manner of saying what one has to say. But if we may imagine them to have made their defense as we have given it above, we may still find objections to their methods. The student enters college with a very meager literary training. He probably has no habit of reading at all, has not read broadly. His study in high school has in most cases been confined to details of expression. He has had no training to give him a larger conception of what literature is. And if the idea of the whole which he is studying emerges it is only dimly. The forest is obscured by the trees. He puts his sense of importance upon what he puts his greatest time and attention upon,—not the whole idea, but the details. When he gets through with his course he may know much of the details of literary methods, but where, in his mind, is that truth which he has come to college to absorb?

(To be continued)

AGRICULTURAL EDUCATION

A. E. Davisson

The study of Soils should be followed by a course of study in Field Crops as the most nearly related subject. It gives the editor great pleasure to be able to present in this issue a complete outline for this subject. This outline was prepared by Professor Martin Nelson, who was formerly assistant professor of field crops in the University of Nebraska, but who is now Professor of Agronomy and Experiment Station Agriculture in the University of Arkansas. Professor E. G. Montgomery, who is head of the Department of Field Crops in our institution, has gone over the outline and gives it his unqualified approval.

Professor Nelson's article gives a complete list of books for the school library, as well as a complete outline of the subjects to be considered. The subject of Field Crops is strongly educative material for the same reason that was stated in the editorial dealing with the outline written by Professor Keyser, i. e., the perceptive powers are constantly brought into action and from the facts observed many conclusions are to be drawn which give the training for the reasoning powers so much sought after by educationists. The constructive imagination is brought into play because from the types of seeds and of the plants con-

sidered the student is gradually led to form for himself the perfect type. In a certain sense the aesthetic powers of the student can be appealed to and employed, though, as yet, these have not been thought of in instruction on the subject of Field Crops. It is recommended by the editor that as much work in drawing as possible be done in connection with the consideration of the various plants, especially when the subject of grains of corn and the small grains is considered.

One thing is deserving of special mention. Instruction in Field Crops must have an abundance of laboratory material at its command. Happily the University is able to supply this need. One paragraph of the outline contains a statement on this point and should be carefully read and heeded. A letter to the editor of this department or to Professor E. G. Montgomery, of the Department of Field Crops, will cause full information to be sent as to what laboratory material there is on hand and at what price it can be obtained.

There will not be published in the Journal any exercises showing the laboratory work which should be done in connection with the subject of crops. Professor Montgomery's department, however, has a manual in use which gives exercises sufficient in number and comprehensive in detail. This manual can be obtained at a small cost and should at least be in the hands of every teacher of the subject.

A COURSE OF STUDY IN FIELD CROPS.

Courses of study in Field Crops are concerned chiefly with studies of the various cereal, forage, and fiber crops that have any considerable economic importance in the agricultural systems of this and of foreign countries, but chiefly of our own country and particularly of our own state.

A study of types, of classes, of grades, and of quality is logically the first step. To this study we should add whatever knowledge we may have of the methods of production and the adaptability of special crops to particular types of soil or sections of the country; the methods of treatment to bring the best results most economically; methods of improvement that lie within the possibility of practical farming; the method of handling and caring for crops, such as harvesting, storing safely, marketing, and markets.

The field of study naturally includes, also, such features as combating and eradicating weeds, and the combating of insect pests, fungus and bacterial diseases, and rusts.

The instruction should be given chiefly as laboratory work. It may, however, be given according to two general plans, one of which is to conduct the work in the laboratory as suggested above and supplement it with short lectures on the various phases as the students are led up to these points and are prepared to receive the information. The other method is to separate laboratory work from lectures and make practically two courses instead of one. It seems advisable in the light of our present stage of development in teaching Field Crops in high schools, to choose the first method suggested and make the work chiefly a laboratory course, supplementing it with lectures in the laboratory.

References.

Examining and Grading Grains, Lyon & Montgomery; Ginn & Co., Chicago.

The Cereals of America, Hunt; Orange Judd Co., New York.

The Forage & Fiber Crops in America, Hunt; Orange Judd Co., New York.

The Manual of Corn Judging, A. D. Shamell; Orange Judd Co., New York.

The Story of a Grain of Wheat, Wm. C. Edgar; D. Appleton & Co., New York.

Year Book, U. S. Department of Agriculture, Washington, D. C.

The Annual Reports of the Bureau of Industrial Statistics, Lincoln, Neb.

The Publications of the Experiment Station; Lincoln, Neb.

The Farmers' Bulletins, U. S. Department of Agriculture, Washington, D. C.

The bulletins of the state Experiment Stations bearing upon Field Crops and listed in the Experiment Station record.

Material for Instruction in the Laboratory

1. Corn—Samples of the six different types and of from two to five standard varieties (preferably ten ears each).

2. WHEAT—Samples of heads of eight different types and about ten samples in threshed form, including: (a) Hard Winter Wheat (grades 1, 2, 3, 4), (b) Red Winter Wheat, (c) Hard Spring Wheat, (d) White Winter Wheat, (e) Durum Wheat, (f) Emmer, and (g) Einkorn.

3. OATS—About ten samples of heads, including each of the different types, and about ten samples in threshed form, including: (a) White Oats (grades 1, 2, 3, 4), (b) Red Oats, (c) Black Oats, (e) Gray Oats, (f) Kherson; also a sample representing Northern-grown, Southern-grown, and winter oats.

4. BARLEY—Samples of heads, including the various types: (a) Two-rowed, (b) Six-rowed. (c) Black and White, (d) Hulled and Hulless, and (e) Bearded and Beardless.

Eight or ten samples of threshed barley: (a) Manchuria (grades 1, 2, 3, 4), (b) Brewing Barley, (c) Hulless Barley, (d) Black and White, (e) Winter Barley, Etc.

5. RYE—Samples of heads and samples in threshed form: (a) Black and White Rye, (b) Spring and Winter Rye.

6. MILLETS—Samples of heads: (a) German Millet, (b) Common Millet, (c) Hungarian Millet, (d) Siberian Millet, (e) Broom Corn Millet, and (f) Japanese Millet.

Samples in threshed form of the above named types.

7. GRASSES—Samples of seeds of about fifteen of the most important types of grasses, and sheaves or herbarium specimens of those most common in Nebraska.

8. CLOVERS—Samples of seed of ten or twelve of the most important types, including alfalfa.

9. MISCELLANEOUS—Threshed or unthreshed forms of the different types of: (a) Sorghum (sacharine or non-sacharine), (b) Cowpeas, (c) Soy Beans, (d) Field Beans, (e) Field Peas, (f) Flax, (g) Hemp, Etc.

The Department of Field Crops of the University of Nebraska has for the past few years made a collection of samples of the chief part of the material mentioned, classified it, and offers it in sets and lots suitable for colleges and high schools and furnishes it to them at cost. Ten or fifteen dollars will purchase a very satisfactory set of this material for high school instruction.

Leaflets are published by the department describing the material and giving the cost.

Apparatus

A limited amount of apparatus will suffice for successful instruction.

1. Small scales that will weigh accurately in ounces.
2. Tripod lenses.
3. Tin cups or small tin basins for samples of grain.
4. Score cards for corn and the different grains.
5. Description cards. These are illustrated in the manual "Examining and Grading Grains" and may be printed for use in the laboratory.
6. Charts for corn and grains and seeds are helpful but not absolutely necessary.

Outline for Course in Field Crops for High Schools:

The Cereals

(1) CORN—
- (a) Brief history.
- (b) Habits of growth.
- (c) Development of types and varieties.
- (d) Study of the six different types of corn, (1) dent corn, (2) flint corn, (3) sweet corn, (4) pop corn, (5) flour corn, and (6) pod corn. (This should be done by making longitudinal and cross-sections and drawing them.)
- (e) Uses, adaptations and commercial value of each type.
- (f) Judging dent corn:
  - (1) Desirable features of good corn clearly stated (see official score card).
  - (2) Study of individual features.
  - (3) Placement of ears:
    - (a) In order of excellence in regard to (1) shape of ears, (2) tips, (3) butts, (4) space between kernels, (5) shape of kernels, and (6) market conditions.
    - (b) With reference to all (1, 2, 3, 4, 5, 6) combined.
  - (4) Use of score card: (a) Scoring single ears, and (b) scoring ten ear samples. (For efficiency, much drill is absolutely necessary.)
- (g) Comparative study of varieties, at least three, as: Reed's Yellow Dent, Boone County White and Leaming.
- (h) Methods of corn culture; place in rotation; kind of soil; most suitable soil; time of plowing; planting; cultivation; harvesting; storing, selection of seed; improvement of seed; effect of environment; varieties adapted to special localities; disease and insect enemies.

(2) WHEAT—
- (a) Classification as given by Hunt. (Cereals of America.)
- (b) Study of heads. (See Manual.) (Lyon & Montgomery.)
  - (1) Make drawing of at least two types.
  - (2) Distinguish botanical differences in (a) form, (b) shape, (c) character of spikelet, (d) character of glume, (e) character of berry, (f) analysis of spikelet. (Draw each part.)
- (c) Threshed Wheat.
  - (1) Study of types in relation to environment: Durum, Hard Winter, Hard or Northern Spring, Red Winter, and White Winter. (Note the natural conditions that produce each type and the section of country in which each is produced.)
  - (2) Flour and bread making qualities.
  - (3) Relation to market classification of wheat.
  - (4) Study quality of wheat in bulk, noting a() purity, (b) plumpness, (c) soundness, (d) size and evenness of size, and (e) freedom from dirt and foreign matter.
  - (5) Scoring wheat by score card.
  - (6) Grading wheat, as to (a) market classification and grades, (b) standards of weight, quality, and purity of each grade.
  - (7) Wheat culture: Time of plowing; place in rotation; soil best adapted; seeding (fall and spring); preparation of the soil; harvesting; storing; marketing; improvement through seed selection; adaptation of varieties; enemies of wheat (diseases, insects), practical methods of combating each.

(3) OATS—
- (a) Study of types based upon (1) forms of panicle, (2) color of grain, (3) shape of grain, and (4) structure of grain.
- (b) Comparison of oats and wheat with reference to (1) form of head, (2) form of spikelet, and (3) structure of kernel.
- (c) Threshed grain.
  - (1) Study of form and structure of kernel.
  - (2) Determination of per cent. of hull.
  - (3) Comparison of types of oats with respect to (a) per cent. of hull, (b) weight per bushel.
  - (4) Relation of weight per bushel to per cent of hull.
  - (5) Determination of actual feeding value of types based upon per cent of hull.
  - (6) Study of (a) purity, (b) variety, (c) purity with respect to freedom from foreign matter and other varieties.
  - (7) Scoring oats by score card.
  - (8) Study of grading standards with respect to (a) weight per bushel, (b) purity, (c) freedom from injury, and (d)

disease and foreign matter.
(9) Differences in type between northern grown and southern grown oats; spring and winter oats.
(10) Culture: Place in rotation; time and method of plowing; treatment of soil; seeding; harvesting; storing; enemies, eradication of smut, avoiding rust, exterminating the chief insect enemies; improvement by use of fanning mill; grader; field treatment.

(4) BARLEY—
The treatment of barley should be much the same as the treatment of wheat and oats, developing ideas largely by comparisons with wheat and with oats in form, structure, and character of crop.
Classes, grades, quality and culture methods should in most respects be treated in the same manner as the plan outlined for wheat and oats.

(5) RYE—
The commercial value of rye would warrant only limited attention in the course, but its usefulness as a hardy plant should be emphasized; its resistance to heat and drought, its power to grow on sandy soils and other soils low in fertility should be brought out, showing its adaptation to certain sections of the state; its adaptation to certain systems of crop rotation; the purposes it may serve for building up soil, for flour making, animal food.

(6) BUCKWHEAT, FLAX and MISCELLANEOUS CROPS may be handled briefly showing their adaptation to soil and climate of certain sections and their uses as substitutes when other crops fail.
Miscellaneous field crops (field peas, field beans, cow peas, soy beans) should be treated briefly showing their relative importance as crops, their chief uses, and their value as soil improvers.

Forage Crops

(1) Leguminous forage crops, including alfalfa and clover.
(a) Study of seeds.
(b) Identification (using as a guide, key in the manual).
Emphasis to be placed upon the chief leguminous crops—for example:
ALFALFA, noting:
(1) Quality of seed.
(2) Presence of dodder and other noxious weeds.
(3) Common adulterants.
(4) Culture:
(a) Time of plowing.
(b) Special preparation of the soil.
(c) Time and method of seeding as applied to the different sections of the state.
(d) Improving thin stands of alfalfa.
(e) Harvesting.
(f) Curing.
(g) Storing.
(h) For forage purposes.
(i) Threshing and storing of seed crop.
(j) Place in rotation.
(5) Importance in maintenance of soil fertility.
(6) Value as a feeding crop for different farm animals.
CLOVER—
Common red, Mammoth, Alsike, Crimson, White, Japanese, Etc., treated as above but in proportion to the economic importance of each.

(2) SORGHUMS (These are annuals that may be grown for seed or for forage)—
(a) Study of types from heads or whole plants that may be available.
(1) Sacharine sorghums. Culture: Method of seeding, cultivation and harvesting, for forage purposes and for seed.
(2) Non-sacharine sorghums. Kaffir corn is the chief type. Some attention to varieties; adaptation to semi-arid regions; method and time of planting; amount of seed; method and stage of harvesting.

(3) MILLETS—
(a) Identification of seeds according to key in manual.
(b) Study of heads, showing: (1) Types of different millets, (2) relative value of millets, and (3) adaptability to Nebraska conditions.
(c) Culture of one type (for example, Hungarian) with respect to: (1) Seeding, (2) harvesting, (3) forage, and (4) for seed.

() GRASSES—
(a) Study of types of most important classes from herbarium samples.
(b) Study of seeds by use of tripod lens.
(c) Identification by key in manual.
(d) Drill on identification by separation of mixtures, followed by identification.
(e) Culture (treat best types such as brome grass, orchard grass, meadow fescue, perennial rye grass, blue grass, etc.).
With reference to:
(1) Method of seeding (a) alone, (b) with nurse crop.
(2) Time of seeding.
(3) Amount of seed.
(4) Adaptability to types of soil. (a) coarse or fine, (b) high or low land, and (c) dry or wet land.
(5) Use for pasture and for hay crop.
(6) Place in rotation.
(7) Value in keeping up fertility, preventing washing of soil, etc.

Farm Management.

A brief exposition of the subject of crop rotation, its importance as a means of preserving soil fertility and the condition of the soil, its aid to clean farming, and its advantage in diversified farming, and its advantage for obtaining high yields and making agriculture generally more remunerative and attractive.

ALUMNI EDITION

The University Journal

Devoted to the Interests of the University and of Education in the State of Nebraska.

Vol. V. LINCOLN, NEBRASKA, FEBRUARY, 1909. No. 5.

THE GRADUATE SCHOOL

By Acting Chancellor Avery

(An address to the Graduate Club)

The vastness of the sum of human knowledge staggers the intellect that tries to contemplate it. But great as the results are, the immensity of the efforts which have been put forth through all the ages to obtain these results is vastly greater, for we must remember that there are perhaps a hundred failures for each successful attempt. All ages of which we have any record, and all nations which have attained to any degree of culture, have contributed more or less to the results obtained, and yet during the lifetime of some of us here, more has been accomplished in certain fundamental lines than in the total previous history of civilization, and I believe that not a little of this phenomenal advance in recent years has been due to the encouragement of graduate studies in the universities of the world. It is my purpose this evening to try to point out a few notable instances of the far-reaching influence of graduate studies on the development of modern civilization.

By the term graduate studies, I mean especially those studies which are the joint product of a mature scholar, usually a university professor, and his less mature students. I do not, of course, refer to the investigations of individual philosophers or savants working with an occasional friend or with paid assistants. Usually, too, it is understood that in graduate studies the student associated with the scholar and working under his direction, has in mind the obtaining of results which can be used in securing a higher academic degree.

It has been said that science (I use the term in the broad sense) has in France and England been promoted most effectively by the individual working in his private capacity, or by the learned societies. In Germany the lead in scholarship has been maintained from almost the very start by the universities. If this distinction were literally true and generally accepted there would be hardly any need of pursuing further the subject of the value of graduate studies because the phenomenal advance of Germany is universally admitted. In no other country has so much been accomplished as the direct result of the scholar working with the student as is the case in Germany. I very well remember that during my student days at Heidelberg an atmosphere of research pervaded the entire institution. There were about a hundred students in chemistry alone working out their "Arbeits" for the doctor's degree. I myself worked in a laboratory where such famous men as Henry Roscoe, afterwards Sir Henry, Lothar, Meyer, Mendelejeff, and others had worked as graduate students. This laboratory had been the scene of such discoveries as spectrum analysis, and the graduate student who had held the piece of platinum wire when Bunsen first saw the sodium line coincided with the line of Frauenhofer, was later my own instructor, Victor Meyer. Victor Meyer, in turn, in connection with the work of his graduate students, had discovered a large number of classes of organic compounds, some of them of very great scientific interest, and many of the facts of physical chemistry were discovered through the impetus given by Meyer and his pupils to this branch of chemical knowledge.

I use chemical facts as illustrations, not because the value of graduate studies can be emphasized better by referring to the his-

tory of chemistry than by reference to any other branchof knowledge, but merely because I am more familiar with this field of work. It is possible also that I have not made it sufficiently clear that such scientific discoveries are of a class closely related to human interests. I may, perhaps, bring out the relation of graduate studies to every-day life by describing an experience which is likely to happen to any of us. When you go home tonight you will perhaps light a Welsbach burner. Think then of young Karl Auer, afterward Baron v. Welsbach, graduate student of Bunsen at Heidelberg. As you light the burner you will perhaps notice on the chimney the word "Jena." This will recall to your mind the wonderful work of Professor Abbe, at Jena, on glass having a low co-efficiency of expansion. By this time your enthusiasm for graduate study will be so strong that you will study till four o'clock in the morning and suddenly discover that you have a terrific headache. In order to relieve the pain you take a tablet of antipyrin. (I do not approve of headache tablets but perhaps this is the most harmless kind.) As soon as this begins to overcome the effects of the headache you can think of the wonderful discoveries of Knorr and his pupils in the field of synthetic drugs. You are, however, not improved permanently, and suddenly realize that you must spend a week or two at the hospital. While you are enjoying the chloroform that will be administered, think of the wonderful work of the constitutional formula of this substance, namely trichlormethane, by Liebig and his pupils, and later on its introduction into anaesthetic surgery by Sir James Simpson of Edinburg, and his pupils. During convalescence remember that the researches of Liebig and his pupils showed that beef tea is practically without nutritive value, but that the peptonized soluble extract of beef is exceedingly valuable in the treatment of convalescents. When you are a little better you will order out your automobile to take a spin into the country for fresh air, and while your are out you can run over in your mind the long series of experiments by professors of engineering and their pupils to determine the most efficient type of internal combustion engines.

In giving this supposed round of experiences I have studiously avoided any reference to the work of scientists and scholars who were not connected with universities, and who were not surrounded by graduate pupils. I have also omitted allusions to the work of men who, while maintaining a nominal university connection, were not in themselves leaders of graduate students in research work. You will notice that I make no claim for any vast preponderance of contributions to knowledge through graduate students and their teachers. I am only endeavoring to show that in the construction of the temple of human knowledge graduate studies have contributed a very important and worthy part.

I believe, further, that while in the past individuals working alone have contributed greatly to human knowledge, in the future knowledge will be advanced more and more by the association of individuals, by the professor who has his corps of graduate students, or by scientific bureaus such as those which exist in the Department of Agriculture where there are highly trained chiefs supported by efficient corps of permanently employed assistants. In the latter organization, however, the work of the bureau will be restricted through the terms of the appropriations by which it is supported, so that, in my judgment, it will never have the freedom of opportunity presented by the ideal graduate school.

It goes without saying, also, that the benefits of graduate studies to society are in no sense confined to the advancement of knowledge along material lines, or to the scientific studies in the narrower sense of the word. In our own university the graduate students under our lamented Dean Edgren were of much practical use to him in preparing his admirable grammars and lexicons of foreign languages. I understand that they have been exceedingly helpful to Dean Sherman in his studies on the subject of the scientific method in literature. In any branch of learning the enthusiastic and well-trained graduate student offers to the professor what we might term a secondary brain and two secondary hands for the work

which has been undertaken, and often we must admit that the secondary brain, on certain phases of the work, is much more efficient than the primary one. The professor who has at his command as many well-trained graduate students as he can use profitably, has a great advantage over the scholar endeavoring to work alone.

In closing, permit me to say a word in regard to the place Nebraska holds among American universities with reference to graduate courses. Under the leadership of Dean Edgren, who was ably assisted by the heads of departments of the University, the University of Nebraska early began to do graduate work of a very high character. Ten years ago we were fourth in total attendance and fourth in the number of graduate students of all the universities of the country partly supported by public funds. This was a pre-eminence which, considering the wealth of Nebraska as compared with other states, we could, perhaps, hardly hope to hold. The good results obtained here and elsewhere were observed by wealthy sister states, and as a consequence money has been more freely given to those departments in sister universities which contribute to the strength of the graduate instruction. In spite of most admirable leadership on the part of Dean Sherman and the devotion of the professors to the cause, we have fallen to the eighth place in numerical registration, while that of our general attendance has fallen only to the sixth place. The quality of the work, of course, retains its former excellence.

I trust that the State and the University authorities may find it in their power to aid more fully in a material way the work of the graduate school. But whether, among the multitude of demands made on the University for funds, this is possible or not, one thing is certain—the members of this Graduate Club have it within their power to strengthen greatly the work in the graduate school by encouraging one another, and by doing their utmost to intensify a respect for graduate work.

CHEMISTRY IN THE SUMMER SESSION.

Benton E. Dales

Two courses will be offered this summer in chemistry, one, a course in general chemistry entitling the student to four hours' credit, and one in analytical chemistry in which a student who has the proper preparation may take such analytical work as he desires.

The first course consists of lectures and laboratory work on the more common non-metals, followed by a study of the more important metals, with a brief consideration also of the compounds of carbon. The fundamental principles of the science are emphasized and at the same time attention is given to the application of chemistry to every day life. The needs of those who are preparing for the examination for State Professional Certificates receives careful consideration. In case the students desire them, excursions will be made to industrial plant, where chemical processes conducted on a large scale may be seen.

In the course of analytical chemistry it is intended to allow students of proper preparation the freedom of the laboratories and the library for whatever work they may desire. By consultation with the instructor in charge, following out the work outlined in such consultations and passing suitable examinations it will be possible, provided the work has been properly registered for, to earn the University credits for semestral chemistry courses, 1, 2, 5, 7, 8, 39, or 40. A student may not earn more than six hours of such credit. Should the number of those desiring any one of these courses exceed five, lectures covering the work of the regular course may be given. It is not necessary to register for specific semestral courses if the student does not care about University credits, but this arrangement makes it possible for tudents in any of the University colleges who are deficient in their chemistry to do more work toward removing the deficiency in the summer than before.

These courses have been planned to meet the needs of two classes of students. The more important class is the teachers, who may wish to review their general chemistry or who may wish to refresh their memories in the matter of analytical methods either qualitative or quantitative. The first course affords good preparation for the examination for the State Professional Certificate, as those who have taken the work within the last few years with this end in view have found. Last year especially with the course given by Acting-Chancellor Avery the students were almost uniformly successful in their examinations. Every effort will be made to keep the course up to this high standard of helpfulness.

The general course may be taken with a view to satisfying the University's optional two-point entrance requirement in chemistry—since it covers the same ground as the semestral course given for this purpose. Those University students then who find it desirable or necessary to take the work as preliminary to required studies may make use of this opportunity.

The analytical course is given not only for the purpose of helping students who may need this work in their groups of studies, but also to afford the opportunity to those teachers who desire it of taking advanced work along at least one line in the field of chemistry.

LITERATURE AND THE CURRICULUM

Sherlock B. Gass

(Concluded)

The method of minute analysis in literary study, though it is purposed to develop the appreciation of beauty in literature, is itself based on a violation of the great aesthetic principles, unity and proportion. The value of a piece of great literature lies in the whole, not in the parts. The parts exist for the sake of their proportionate contribution to the whole. The parts are subordinate. To be concrete it is more important that the student should become possessor of the truths of a whole work of Thackeray than that he should know minutely the devices by which he produces the emotional effects of a single volume. It is more important that the student should absorb the whole wisdom of Tennyson than that he should know the detailed methods of producing effects of beauty and expressing truth in a single poem.

It is after all a matter of proportion. It is not that value does not lie in the examination of the minutiae of literary phrasing and style, but that in view of the student's inexperience in literature, and in view of the great central purpose of the cultural curriculum, the treatment of literature as a repository of truth is the only thing which will give it a worthy place in this curriculum.

If literature were taught for the sake of its ideas by those who were held to speak with authority upon it, would it not impress itself as something more worthy than it seems to at present upon serious scholars in other branches of learning? It is important that these men should think rightly of literature, for their idea of its value will appear in their discourses, and will reappear in their students. Literature and its civilizing influence is too valuable an aid to right living and wisdom for us to risk its misconception among students and among those to whom they look for guidance. As it is, our students, both literary and other, grow further and further away from the possibility of getting from literature what it has most freely and valuably to offer. They are confirmed in a notion that it is a matter of play, of entertainment, of pastime. They make a differentiation between the Bible and literature which ought never to be made. For literature, like the Bible, is a record of truth.

NEBRASKA HIGH-SCHOOL DEBATING LEAGUE

M. M. Fogg.

Fifty-two schools have joined the Nebraska High School Debating League, the district contests in which will begin the middle of January. The following schools have become members, in addition to the list of forty-two published in the "University Journal" for November:

Beaver City—W. T. Davis, Supt.; Bertha Downing, Principal.

Friend—J. C. Mitchell, Supt.; Clara B. Stevens, Principal.

Lincoln Academy—Florence McGahey, Principal.

Minden—J. O. Lyne, Supt.; Clara Schneller, Principal.

Pierce—O. R. Bowen, Supt.; Rena Olmstead, Principal.

Ravenna—S. E. Mills, Supt.; Bejmain Harrison, Principal.

Seward—G. R. Kindler, Supt.; Elizabeth M. Shotwell, Principal.

Weeping Water Academy—C. E. Corbin, Principal.

A new district league—the East-Central—has been formed, to include schools in the north-just been formed, to include schools in the northern part of the original Southeastern District, the membership of which became too large.

Material on the question to be debated this year—the compulsory arbitration of railroad strikes—is being loaned to schools by the Legislative Reference Library of the State Historical Society and by the University Library.

The following district directors, who are to supervise the work of the ten district leagues, have been appointed by the president of the League:

Central District, Supt. R. W. Eaton, Geneva; Eastern (formerly East-Central District), Supt. H. H. Hahn, Blair; East-Central, Supt. C. E. Teach, University Place; Northern District, Supt. C. A. Mohrman, Atkinson; North-Central District, Supt. O. R. Bowen, Pierce; South-Central District, Supt. T. A. Blakeslee, Fairfield; Southeastern District, Supt. R. H. Graham, Wymore; Southwestern District, Supt. V. L. Strickland, Bloomington; Western District, Supt. Wilson Tout, North Platte; West-Central District, Supt. Eugene Howe, Ord.

Results of district contests include the following:

Northern—Atkinson-O'Neill, won by Atkinson; Ainsworth-Valentine, won by Valentine.

Eastern—Plattsmouth-Weeping Water, won by Plattsmouth.

Central—Central City-Osceola, won by Osceola.

Southeastern—Humboldt-Wymore, won by Wymore; Auburn-Nebraska City, won by Auburn.

UNIVERSITY EXTENSION DEPARTMENT.

Correspondence Courses.

By J. L. McBrien.

One of the best features of University Extension work is that the student may register at any time and pursue the course of study alone if necessary. As a rule, better work can be done where there is a class of persons working together in an extension center under a competent leader, but this will be impossible for a great number of those who desire to do extension work. Therefore they are given the opportunity of working alone.

The work appeals, therefore, to the following classes: (1) Students preparing for college; (2) college students who are unable to pursue continuous resident study; (3) grammar and high school teachers who cannot avail themselves of resident instruction; (4) teachers and others who have a partial college course and wish to work along some special line; (5) instructors in higher institutions who desire assistance in the advanced study of some subject; (6) professional and business men who wish technical advice; (7) ministers and Bible students who would fit themselves better to use the sacred Scriptures; (8) all who desire a broader knowledge or a more thorough scholarship.

Courses are of two kinds, formal and informal.

a) The formal course furnishes a systematic and progressive presentation of the subject in a given number of lessons. Each lesson contains:

(1) full directions for study, including references to the ext books by chapter and page; (2) necessary suggestions and assistance; (3) questions to test the student's methods of work as well as his understanding of the ground covered. After preparing for recitation the student writes his answers to the questions and mails them to the instructor, together with any difficulties which may have arisen during his study. This recitation paper is promptly corrected and returned. In like manner every lesson is carefully criticised by the instructor and returned, so that each student receives personal guidance and instruction throughout the course.

b) The informal course is designed for students who are pursuing studies of an advanced nature. The course is usually arranged between instructor and student to meet the particular needs of the latter. The formal lesson sheet is dispensed with, but the course is carefully outlined by the instructor, and the student is required to present satisfactory evidence that the work is being properly done. This evidence may consist of a number of short papers on special themes, a thesis covering the whol work, or it may partake rather of the nature of ordinary correpondence.

Courses are formal when not otherwise indicated.

Those who desire to take work in any of our correspondence courses should write for information at once, especially those teachers who desire to raise their grades for a "With Credit" or "With Honor" certificate by the time of the regular examination in June.

Life and Times of Abraham Lincoln.

Among those who have registered for this special course on the "Life and Times of Lincoln" are: Miss Nellie D. Crowley, Lincoln, Miss Josie Suliivan, University Place, Miss Anna Anderson, David City, Principal J. E. Ray, Grafton, Mr. B. H. Burritt, Ainsworth, Principal C. E. Newell, Elgin, Lydia L. Quillen, Milburn, Supt. R. I. Elliott, Chadron, Supt. P. E. Clement, North Bend, Principal Loy L. Gilkeson, Morse Bluff; Superintendent Elizabeth Shaffer, David City; Miss Etta De Lay, Dixon, Superintendent Ed M. Short, Franklin, and Rev. W. T. Cline, Ph. D., Fairbury. At several of the above-named towns ten or more persons will pursue this course. Where ten or more persons take this course together, through the kindness of Miss Charlotte Templeton of the Nebraska Public Library commission, we are able to place a set of Lincoln's complete works and also one set of Morse's Life of Lincoln at the free use of such class or group.

Other Courses.

Among those who have registered for other courses are: Principals W. D. Cave, Imperial; A. M. Vance, Bennet, Geo. W. Myers, Snyder, L. E. Evans, Monowi, O. W. Money, Belden, C. E. Collins, Merriman, L. E. Mohler, Brainard, Edward Jacobsen, Alvo, J. A. Crawford, Gilead, Bert Cooley, McLean, Misses Louise and Pearl Lamborn, Palmyra, Florence Loghry, Shickley, Hannah Johnson, Ashton, Bessie Van Dusen, Kennard, Alice Osborn, Richfield, Fern Warner, Edison, Pearl Bentz, Woodsocket, S. Dakota, Edith M. Choyce, Decatur, Mmes. H. Samuelson, Hildreth and R. H. Graham, Wymore; Messrs. A. L. Graybiel, Neligh, A. I. Hofmaier, Constance, Wiley, Snyder, DeWitt, C. H. Ratcliff, Grand Island, and many others.

Debating and Public Lectures.

Professor M. M. Fogg has rendered splendid service to several high school in furnishing their debating teams with material on the various questons to be fought out in the debates of the Nebraska High School Debating League. Professor Fogg addressed the Plattsmouth High School on Abraham Lincoln Thursday afternoon, February 11, and acted as a judge there in the debate that evening. Friday evening he gave his Lincoln lecture under the auspices of the high school at Morse Bluff, and Saturday evening he delivered the same lecture under the auspices of the high school at Valley. Professor Fogg is a logical and forceful speaker and delighted his audiences at all of these places.

Professor Persinger gave his illustrated lecture on Abraham Lincoln under the auspices of Fairfield High School, Friday evening, February 12, and under the auspices of the Bruno High School Saturday evening, February 13. Mr. James Bednar assisted him as operator of the streopticon.

It was our privilege to speak on Abraham Lincoln under the auspices of the Library Board at Havelock Thursday evening, February 11. The souvenir program was one of the neatest we have seen. On the front cover page was a picture of the log cabin in which Lincoln was born. On the back cover page was a picture of Lincoln delivering his first inaugural address at Washington, D. C. Dr. Ballard, president of the Library Board, presented a fine portrait of Lincoln for the Havelock Public Library. The receipts of the evening were nearly fifty dollars, which will be expended for library books.

On Friday morning, February 12, we talked to the pupils of the practice high school, teachers' college, on Lincoln's childhood, his poverty, and his method of study. It was also our privilege Friday forenoon, February 12, to address the Lincoln High School on the life, character, and career of Abraham Lincoln; and Friday afternoon, February 12, we gave the same address to the students of Luther Academy and the pupils of the public high schools and citizens of Wahoo at the auditorium of Luther Academy. We were to speak at Ashland Friday evening, February 12, but owing to the rough roads and severe storm that prevailed, every liveryman at Wahoo and every automobilist refused to take us to Ashland. We were fortunate, however, by the use of modern means to communicate with Dr. J. T. Roberts of University Place in time for him to reach Ashland that evening, for his lecture on Lincoln.

Saturday afternoon, February 13, we attended the Washington County Teachers' Association. Superintendents Hahn and Rhoades in their respective fields of work deserve special commendation for their efficiency in supervision.

Saturday evening, February 13, we spoke on Lincoln at Oakland, under the auspices of the public high school. Superintendent Penny is maintaining the high standard of the Oakland schools that was brought about under the efficient supervision of his predecessor, Prof. W. H. Myers, who is now assistant superintendent of the Industrial for Boys at Kearney. We found that Superintendent Penny is exceptionally popular with his teachers, his pupils, and the general public. He is "making good" in the highest degree.

IT WAS A SQUARE DEAL.

A square deal was given the five thousand farmer boys and farmer girls of Nebraska who are now attending the five hundred free high schools of our great commonwealth, when the House of Representatives Friday forenoon, February 19, 1909, by an overwhelming vote indefinitely postponed a bill for the repeal of the free high school act of 1907. It was one of the most interesting fights of the present session when this bill came up for final consideration. Representatives Bushee of Kimball, Killen of Gage, and Taylor of York, led the fight to kill the bill for the repeal of our present free high school law. Representatives Scheele of Seward, Greig of Platte and Graff of Cuming, were the leaders for repeal.

Those who were against the repeal of the present free high school law could hear the voice of five thousand farmer boys and farmer girls saying, "Give us a square deal in the opportunities offered by the state for a free high school education and for a free University course." The friends of the present law could also hear the plea of over five thousand farmer boys and girls who will finish the rural school course next June with an ambition to enter the five hundred free high schools, and when these schools are finished, to go on and complete a college, university, or normal school course. These legislators who voted so overwhelmingly against the repeal of the free high school law looked beyond the present and heard the voice of the future. They saw not only the ten thousand farmer boys and farmer girls who will take advantage of the law this year and next, but they saw tens of thousands of farmer boys and farmer girls in the years to come seizing the opportunities offered by these rfee high schools.

We shall not attempt to say what voice it was that called to those who labored for the repeal of the present free high school law. We can only say that we find it hard to imagine any reasonable cause which prompted them to make the fight they did. Surely it was not on account of burdensome taxation, for the average school tax, including the free high school tax, voted by the rural districts in thirty counties of the state having the greatest number of pupils entitled to free high school privileges, and therefore bearing the heaviest burden under the present free high school law, is only 11 mills, while the average tax voted by the high school districts in the same counties is 20 mills.

The mandatory provision of the constitution which declares that the legislature shall provide for the free instruction in the common schools of the state all persons between the ages of five and twenty-one years means beyond all reasonable doubt that such intsruction shall include both **elementary** and **secondary** education. It is absurd to think that the framers of the constitution intended to give Nebraska farmer boys and farmer girls only an elementary education and at the same time to provide free secondary education, and in addition thereto a free university education, for the town boy and the town girl. There is a four-year gulf between the last year in the rural schools and the first year in the university. A free university education, therefore, means nothing to the farmer boy and the farmer girl unless the gulf is bridged. But for more than half a century the town boy and the town girl have enjoyed the privileges of free high school education by a tax levied under a law which makes the high school district the unit of taxation and, in addition thereto, opens the doors free and wide at the university for the graduates of the three-year and the four-year high schools.

It is very difficult to frame any law that will give equal privileges with equal burdens of taxation to all. There are some rural school districts in Nebraska that contain an entire township within their boundaries, and even in some cases two entire townships are included within their boundaries. The principle of taxation in each case is absolutely uniform but the opportunities offered thereunder are far from being equal. For example, take the man in one of these largest rural school districts, who lives just across the road from the schoolhouse, and then take the man who lives, in some instances, six, nine or twelve miles from the schoolhouse. Which man's children have the better opportunities for obtaining an education? Take another example under the existing statute, entirely beyond the provisions of the free high school act. There are four public schools districts in Platte county that voted no school tax whatsoever for the school year 1907-08, for the reason that the state school apportionment, as given to all districts in the state, and the amount obtained from licenses were sufficient to maintain six months of school in one district, nine months of school in two districts and nine and one-half months of school in one district.

In Douglas county, five public school districts for the same school year voted no school tax whatsoever, four of them maintaining nine months of school and one seven month.s This comes from the fact in the case of most of these Douglas county school districts that the school census of that county draws such a large sum from the state apportionment of public schools moneys, one-fourth of which is divided equally among all the public school districts in the county.

But a more serious case than any of these in Platte or Douglas counties comes from McPherson county, where one rural school district with an assessed valuation of $617.37, by voting the limit of twenty-five mills, raised $15.43 for the support and maintenance of school in said district for the school year 1907-8.

The public school districts in Douglas and Platte counties which did not find it necessary to vote any school tax whatsoever, are all rich districts, with many thousands of dollars assessed valuation in each district, and in one case at least, the assessed valuation passes the $100,000 mark, while the poor, weak district in McPherson county has an assessed valuation of less than $1,000. Here is a legislative parable which could be measured by the scriptural rule without much stretch of the imagination: "For he that hath, to him shall be given; and he that hath not, from him shall be taken even that which he hath."

The free high school act of 1907 is not a partisan or sectarian measure. It is of the people, by the people and for the people. It is for Democrats and Republicans, Populists and Prohibitionists, Catholics and Protestants, Athiest and Jew. This act when put upon its passage in the Senate received thirty votes—men of all political parties supporting it with equal earnestness. Those voting

against it—none; absent and not voting—3, two Republicans and one Democrat. When read the third time in the House and put upon its passage there, it received 81 votes, Democrats, Republicans and Populists voted for it. Neither a Democrat nor a Populist voted against it and only two Republicans voted in the negative. Absent, excused and not voting—17, fourteen of whom were Republicans, two Fusionists and one a Democrat.

If the present free high school law is not perfect in all its provisions, it can be amended, but it is correct in principle. Before the act has been in operation five years, there will be at least twenty thousand farmer boys and farmer girls each year knocking at the doors of the five hundred high schools in Nebraska. These boys and girls will be under the instruction of over one thousand trained teachers. It will place at the disposal of the state over three millions of dollars in school buildings, grounds, apparatus, books, and libraries, for the education of this great army of young people in the higher duties of American citizenship. The free high school law is a reciprocal proposition which will bring great benefit to both town and country schools. Never in the history of the state has there been such an inspiration given to the boys and girls of the rural schools to complete the course therein and to march on to the high schools with aspirations to finish a university, college, or normal school course, as has come to them under this law.

We cannot do better here than to quote from the Democratic Platform of 1892:

"Popular education being the only safe basis of popular suffrage, we recommend to the several states most liberal appropriations for the public schools. Free common schools are the nursery of good government, and they have always received the fostering care of the democratic party, which favors every means of increasing intelligence. Freedom of education, being an essential of civil and religious liberty—as well as a necessity for the development of intelligence, must not be transferred to a teacher's certificate on a less

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The University has published a list of experiments and apparatus in physics such as will meet the requirements for entrance in that subject. Attention is called to the fact that no one is admitted to University work in physics who has not had a full year of preparation. Credit cannot be transferred to a teachers' certificate on a less amount of work.

A LINCOLN PICTURE

The following letter is self-explanatory:

"Omaha, Nebr., Feb. 12th, 1909.

"To the Chancellor of the State University, Lincoln, Neb.:

"Dear Sir:—I ask that I may present to the University of Nebraska, located at the attractive city that bears his name, a picture of Abraham Lincoln, showing him as he looked during his great debate with Douglas, during his trip to Washington, late in February, 1861, and as he stood on the east porch of the nation's capitol when he delivered his first inaugural address. As corporal of the Canton Zouaves, I formed a part of his escort as he passed through Ohio, shook hands with him at Alliance and was so impressed by his personality that I went to Washington and stood in front of the capitol and heard that persuasively winning address that should have won all hearts and captured all brains, but did not prevent that great war, that, dreadful as it was, was worth all its expenditure of treasure, comfort and life.

"This picture is an enlarged photograph of a daguerreotype taken at the time and is positively accurate, as I can vouch.

"I hope it may prove acceptable to the great institution, the growth of which I have watched with much interest and pleasure.

"Truly yours,
"CHARLES F. MANDERSON."

Nebraska is fourteenth in size of the universities of the United States. Following is a list of the twenty-five most prominent institutions:

1.	Columbia	5,675
2.	Harvard	5,342
3.	Michigan	5,188
4.	Chicago	5,114
5.	Cornell	4,700
6.	Minnesota	4,687
7	Pennsylvania	4,555
8.	Illinois	4,400
9.	New York University	3,951
10.	Wisconsin	3,876
11.	California	3,751
12.	Yale	3,466
13.	Syracuse	3,204
14.	Nebraska	3,154
15.	Northwestern	3,133
16.	Ohio	2,700
17.	Missouri	2,558
18.	Iowa	2,356
19.	Indiana	2,113
20.	Kansas	2,086
21.	Stanford	1,541
22	Princeton	1,314
23.	Western Reserve	1,016
24.	Virginia	757
25.	John Hopkins	698

Many improvements are now under way on the campus of the University of Michigan. The recent increase in the appropriation has been put to immediate service, and as a consequence, the new dental building has just been occupied; a substantial addition is under way for the new engineering building, necessitated by the enormous growth of that department, the past few years; ground has been broken for a new chemical building to cost nearly $200,000; and a substantial appropriation has been granted for the alumni memorial building.

The University library has received from the author ten volumes of "The Great Captains," by Colonel Theodore A. Dodge, U. S. A., retired. Col. Dodge treats of the great military men from Caesar to Napoleon, his work being in the main from a military point of view. He is presenting a set of the books to all army posts and to every university maintaining a cadet battalion.

The sum of $910,000 has been raised for the Harper Memorial Library at the University of Chicago. One-third of the amount will be used as an endowment fund.

AGRICULTURAL EDUCATION

A. E. Davisson

Below appears a description of the laboratory material in Field Crops. This material has been collected and prepared by Professor E. G. Montgomery, head of the Department of Field Crops. It is a distinct contribution to the instructional work in agricultural education which the law requires carried on in our schools. All persons desiring this laboratory material or any portion of it can procure the same by corresponding with Professor E. G. Montgomery, Department of Field Crops, the University of Nebraska.

LABORATORY MATERIAL.

The material consists of samples of the principal cereal crops, representing both types and commercial grades. The samples are put up in several ways to meet the needs of both large and small schools. Lots cannot be broken, but may be bought separate or any number combined. The material is all bought with University funds and sold as near cost as posmsible. It is recommended that in addition to these standard sets, a number of local samples be collected in each vicinity.

Price List.

THRESHED GRAINS, 30 samples.
- 30 peck samples i colth bags.....$16.00
- 30 pint samples in Mason fruit jars.... 6.00
- 30 4-ounce samples in 4 ounce bottles.. 3.00

GRAIN IN HEAD, 47 samples.
- (25 heads each—only 10 of millets, 5 of rice, 2 of corn, and 1 of Kaffir, and Jerusalem corn) 6.00
- Mounted behind glass in wooden frames 8x10 inches: 1 frame wheat, 9 types, 1 frame oats, 2 types, 1 frame barley, 5 types, 1 frame millets, 6 types, per set of four..... 2.00

GRASS, CLOVER AND MILLET SEEDS, 30 samples.
- 30½-pound samples in paper bags....$ 4.00
- 30 samles in 2-ounce bottles..... 3.00
- Mounted samples behind glass, 3x6 inches (4 mounts of 7 samples each) per set of 4 ..... 1.50

The mounted specimens of grain in head, representing the principal types, are very convenient in all schools as they are permanent and useful for reference and identification. They may be serviceable for years as they are protected from mice and insects. If a school cannot afford the standard size sets, the mounted samples in themselves would be a great help.

These mounts afford excellent opportunity for detail study and close comparison of the grass, clover and millet seeds. The seeds may be studied wlth a magnifying glass for identification puproses or impurities.

WALL CHARTS—on Holland (linen) in India ink.

Wall charts showing diagramatically the mlcroscopic structure of wheat, corn and oats grains may be had at cost of reproducing from the Laboratory Manual "Examining and Gradlng Gralns" by Lyon and Montgomery. These charts are about 36x100 in slze. Cost will be approxiately $5 each.

Similar charts may be had giving identification keys to and illustrations of, 1. Grass Seeds, 2. Clover Seeds, 3. Millet Seeds, as shown in the above manual, at somewhat less cost.

Grouping for Schools.

Schools will find the following collective sets suitable, according to the number of students and time to be devoted to this study. Any other grouping may, however, be arranged as best satisfies the needs of the individual school.

For Agricultural colleges, Normal schools, etc., where full courses in grain judging are given, and classes have 20 or less in a division.

Threshed grains, peck samples.....	$16.00
Grain in head	6.00
Grass, clover and millet seed, ½ pound samples	4.00
Mounted grain in head.....	2.00
Mounted grass, clover and millet seed.....	1.50

In schools having large dlvisions, or a large number of students (100 or more) a double quantity should be ordered of each.

For High Schools and many Normal Schools, the following set will be suitable:

Threshed grain in pint jars.....	$ 6.00
Threshed grain in bottle samples.....	3.00
Grain in head.....	6.00
Grass, clover and millet seed, ½ pound.....	4.00
Grass, clover and millet seed, ½ pound, in bottle samples	3.00
Mounted grain in head.....	2.00
Mounted grass, clover and millet seed.....	1.50

Rural schools and all small schools, will find the bottle samples and grain in head sufficient material. Whenever possible the mounted samples should be purchased, as they furnish a permanent reference.

Description of Materials.

The following brief outline will give some ldea of the character of these samples. They have been selected with a view of securing as wide a range of type as possible. An attempt will be made to fill orders in accordance wlth the outline, though they may be subject to slight change.

Threshed Grain Samples.

WHEAT, 12 samples.

1. White Winter Wheat (Oregon) represents soft starchy type.
2. Little Club Wheat (Washington) represents soft starch type.
3. Red Wlnter Wheat No. 1 (Ohio Exp. Sta.) represents intermediate hardness.
4. Red Winter Wheat No. 2 (Ohio Exp. Sta.) represents intermediate hardness.
5. Hard Spring Wheat No. 1 (Canada) represents hard, virteous type.
6. Durum Wheat (North Platte Sub. Sta.) Nebraska.
7. Hard Winter No. 1 represents hard winter type.
8. Hard Winter No. 2, represents the three commerclal grades as obtained from a Nebraska elevator.
9. Hard Winter No. 3 represents the three commercial grades as obtained from a Nebraska elevator.

10. White Spring Emmer (Nebr. Exp. Sta.)
11. Black Winter Emmer (Nebr. Exp. Sta.)
12. Einkorn (Nebr. Exp. Sta.)

OATS, 11 samples.

1. White Oats No. 1.
2. White Oats No. 2.
3. White Oats No. 3. Nos. 1, 2, and 3 represent 4 commercial grades as obtained from Van Dusen Harrington Co., Minneapolis, Minnesota.)
4. White Oats No. 4.
5. Swedish Select (Nebr. Exp. Sta.) Light weight.
6. Swedish Select (imported Garton Bros., Eng.) Heavy weight.
7. Black Oats (Imported Garton Bros., Eng.) Heavy weight.
8. Kherson Oats (Nebraska) representing early small grained type.
9. Texas Red oats (Oklahoma.)
10. Gray Winter Oats (Kentucky.)
11. American Banner, light weight (Nebraska.)

BARLEY, 8 samples.

1. Six Rowed White Hulless (North Platte Sub. Sta., Nebr.)
2. Six Rowed Black Hulless (Nebr. Exp. Sta.)
3. Six Rowed Oderbrucker No. 1 (Canada) represents 4 commercial grades of barley.
4. Six Rowed Oderbrucker No. 2 (Wisconsin Exp. Sta.)
5. Six Rowed Oderbrucker No. 3 (Wisconsin Exp. Sta.) of barley.
6. Six Rowed Oderbrucker No. 4 (Wisconsin Exp. Sta.) (Nos. 4, 5, and 6 represent 4 commercial grades of barley.)
7. Six Rowed Tennessee Winter (Nebraska Exp. Sta.)
8. Two Rowed Montana Brewing (Montana Exp. Sta.)

Samples of Grain in Head.

WHEAT, 11 samples.

1. Club Wheat, Farmers Trust (from Nebraska.)
2. Turkish Red Winter Wheat (bearded.)
3. Big Frame Winter Wheat (beardless.)
4. Durum Spring Wheat.
5. Banat Winter Wheat (bearded.)
6. Blue Stem Spring Wheat (velvet chaff-beardless.)
7. Polish Wheat (from Washington State.)
8. Emmer (Black Winter) (from Nebraska.)
9. Emmer (White Spring) (from Nebraska.)
10. Einkhorn (from Nebraska.)
11. Speltz (from Nebraska.)

OATS, 9 samples.

1. Swedish Select (spreading-white) Nebraska Exp. Sta.)
2. Swedish Select (Spreading-white) Imported Garton Bros., England.)
3. Kherson (Spreading-yellowish) (Nebraska Exp. Sta.)
4. Silver-Mine (Spreading-white.)
5. Texas Red (Spreading-redish.)
6. Joanette (Spreading-black.)
7. Sparrow Bill (Side white.)
8. Black Oats (imported, Garton Bros., England.)
9. White Russian (Nebraska Exp. Sta.)

BARLEY, 8 samples.

1. Six Rowed White Hulless (beardless.)
2. Six Rowed Black Hulless (awned.)
3. Six Rowed Oderbrucker (awned.)
4. Six Rowed Ohio Champion (awnless.)
5. Two Rowed Brewing Barley (awned.)
6. Six Rowed (Gov. No. 10360) (awned.)

MILLETS, 7 samples.

1. Common Millet.
2. German Millet.
3. Hungarian Millet.
4. Siberian Millet.
5. Broom Corn Millet.
6. Japanese Barnyard Millet.

CORN.

2 Ears Sweet Corn.
2. Ears Flour Corn.
2 Ears Flint Corn.
2 Ears Pop Corn.
1 Ear Pod Corn.
2 Ears Dent Corn.
1 Ear Cob-pipe Corn.

MISCELLANEOUS.

1 Head Kaffir Corn.
1 Head Jerusalem Corn.
1 Head Pearl Millet.
5 Heads Rice.

Grass, Clover and Millet Seeds.

GRASSES, 14 Samples, as follows:

1. Meadow Foxtail (Alopecurus pratensis.)
2. Annual Rye Grass (Lolium italicum.)
3. Tall Meadow Oats Grass (Arrhenatherum elatius.)
4. Sheep Fescue (Festuca ovina.)
5. Crested Dog Tail (Koleria cristata.)
6. Wheat Grass (Agropyron occidentale.)
7. Orchard Grass (Bromus inermis.)
8. Brome Grass (Bromus inermis.)
9. Perennial Rye Grass (Lolium perenne.)
10. Meadow Fescue (Festuca pratensis.)
11. Johnson Grass (Sorghum halpense.)
12. Red Top (Agrostis alba.)
13. Kentucky Blue Grass (Poa pratensis.)
14. Timothy (Phleum pratensis.)

MILLETS. 5 samples as follows:

1. Common Millet (Chœthocloa italica.)
2. Hungarian Millet (Chœtochloa italica.)
3. Siberian Millet (Chœtochloa italica.)
4. Broom-corn Millet (Panicum milaceum.)
5. Japanese Barnyard Millet (Panicum crus-galli.)

CLOVERS, 11 samples as follows:

1. Crimson Clover (Trifolium incarnatium.)
2. Alfalfa (Medicago sativa.)
3. Burr Clover (Medicago denticulata.)
4. Yellow Trefoil (Medicago lupulina.)
5. Bokhara Clover (Melilotus alba.)
6. White Clover (Trifolium repens.)
7. Alsike Clover (Trifolium hybridum.)
8. Red Clover (Trifolium pratensis.)
9. Sainfoin (Onobrychis sativa.)
10. Yellow Sweet Clover (Melilotus officinalis.)
11. Japan Clover (Lespedeza striata.)

The University Journal

PUBLISHED MONTHLY

By the Teachers' College of the University of Nebraska

Entered April 13, 1906, at Lincoln, Nebraska, post-office as second-class matter, under the Act of July 16, 1894.

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Summer School—Paul H. Grummann, Director Summer School, the University.

University News—E. H. Clark, Purchasing Agent, the University

The overwhelming defeat of the bill to repeal the certification law is satisfactory to all progressive teachers of Nebraska.

The action of the city council arranging to vacate the intersecting streets when the University secures the additional blocks will make the new addition of much greater value to the University by preserving the integrity of the campus.

A bill has passed both houses of the Legislature by a practically unanimous vote making high school fraternities illegal. This will meet the approval of nearly all who have had occasion to study the effect of such organizations.

SNEAK DAY.

For the second time the State Teachers' Association has gone on record as opposing the spirit of such freakish events as "sneak day." In 1907 this took the form of a general condemnation of such practices in the public schools. At the last session the following resolution was adopted unanimously:

"We commend the act of the University Senate in declaring against 'Sneak Day,' and we commend those superintendents, principals, and teachers who have taken a firm stand against this pernicious custom which has threatened to fasten itself upon our high schools."

The action to which reference is made was the passage of the following resolution:

"That we look upon the perpetuation of 'Sneak Day' and the 'Night Shirt' parade and similar functions as a violation of good order and discipline, which should no longer be permitted.

"That students participating in any of these events shall be indefinitely suspended from the University, and we recommend that hereafter no participant shall be appointed to a scholarship or other position of honor or profit in the University."

This resolution had as its origin a report of the committee of the deans, investigating numerous and severe criticisms upon the University on account of the feeling that such demonstrations are directly at variance with the formation of high civic ideals on the part of University students, and because of the tendency of pupils in the high schools to imitate these abnormal forms of college and university life. Recognizing the justness of the criticism and accepting the responsibility of leadership, the University will endeavor to correct this evil by permitting the example no longer to be charged up to its account.

A large proportion of University graduates step at once into positions of high responsibility and influence in their work as teachers. Were it not for this fact it is probable that the whole matter would be good-naturedly passed over by the public as merely another form of the irresponsible coltishness incident to the adolescent age. But in the case of those who have been spending two years in studying education and who aspire to lead in character building, the public is disposed to feel that they have not yet realized the danger of a wrong example in every form of law-breaking or they are lacking in courage if they do understand, and yet are over-persuaded by those who have not yet had occasion to face seriously the problem of personal responsibility for all forms of civic delinquency.

It is not strange that many school boards are unwilling to entrust the discipline of their high schools to those who have lately indulged in such childish pranks. Instances of the suggestion of such outbreaks by these thoughtless young instructors are all too fre-

quent. They can scarcely, with consistency, frown upon acts in which they themselves have so lately participated.

It is argued that when college students or high school pupils have been so observant of law for four long years, they should not be deprived of the one glad day of lawlessness. The same logic would give the trusted employee one day in a given period to rob the till and would permit the upright man and woman one day in many for self-indulgence.

There should be much of brightness and pleasure in the lives of the young, but never let it be admitted that this cannot be accomplished within the limits of the law. It is a strange distortion that would make it necessary for a senior class to "sneak" from school or college in order to have a pleasurable class function, when the same opportunity for social enjoyment can always be secured by arrangement with the proper authorities .

Public schools of all grades are maintained at great expense in order to train for citizenship. It is difficult for the public to understand why one of the closing events to signalize this preparation should be an open defiance of law.

The people of Nebraska will appreciate the spirit in which the present senior class of the University is planning to co-operate with the University authorities in carrying out the resolution of the Senate.

THE CARNEGIE FOUNDATION

By a vote of 25 to 8 the Senate passed the resolution introduced by Senator Buck, authorizing the Regents to apply for a position on the Accepted List of the Carnegie Foundation for the Advancement of Teaching. The effort to make it a party measure failed, and it now goes to the House upon its merits .

There are two questions involved: (1) the wisdom of a pension system and (2) the desirability of receiving funds from a private source to endow such a system.

One of the highest honors that can come to an American citizen is to be deemed worthy of a place on the pension list as a defender of the nation's flag. It is a recognition that the individual has rendered the highest form of service. The man of means is as prompt to accept this reward as is the widow whom it saves from actual want.

Every soldier in the regular army is entitled to a retiring allowance after a given age or on the completion of a stated term of service. This is on the theory that the life of the soldier unfits him for other avocations, while the period of life ordinarily extends beyond the term of reasonable efficiency.

Whether Nebraska accepts it or not, the pension system has come into the field of higher education. Minnesota, Illinois Indiana, California, Iowa and Massachusetts have already accepted the conditions. and without doubt every other state eligible will do the same. Whether the principle is approved or not, whenever any institution provides a pension, other institutions are placed at a great disadvantage if they fail to do so. No salary consideration could be made equivalent. Nebraska has at least six professors now eligible to receive a pension, at their pleasure. Granting that few, if any, would desire to accept immediately, what increase could be given these men that would be equivalent to the possibility of a retiring allowance that would provide comfort for their old age, and for their widows should they survive? There are twenty-five that have less than ten years to serve before the same privilege would be theirs.

The system under discussion provides for retiring after twenty-five years of service or on attaining the age of sixty-five after fifteen years of service. In the former instance, the allowance is lower, so as to discourage retiring unless conditions really warrant it. In the latter case, it is frequently of mutual advantage to institutions as well as to the individual to have a provision for retiring. One of the embarrassing problems of every institution, commercial as well as educational, is to be just to its own interests and yet be humane to its faithful employees of long service.

Large corporations that are peculiarly dependent upon the highest powers of skilled employees are finding it profitable to maintain a pension system. By so doing they secure a loyalty and singleness of effort that will utilize the highest possible efficiency dur-

ing a reasonable period, and yet that humanely makes way for younger men when this period is past.

Cities find it desirable to pension members of the police and the fire departments. Some states have already provided pensions for teachers.

Those who object to a pension system from a private source must recognize the fact that no act of the legislature could provide a pension equivalent to the one proposed. The prime requisite of a pension is its stability. If a man is to give up a position it must be for a sure and permanent substitute. An act of the legislature is subject to change at every session. The income of the individual would depend upon everchanging conditions. Nothing but a constitutional amendment for a levy, to be automatically expended, would be as firm and safe.

Before the State pensions its University professors it must provide a fund for the faithful and even less-remunerated public school teachers. No one would seriously suggest a system of pensions for University instructors at public expense. However desirable it might seem, the State has too many other pressing needs.

Granting that a pension system is desirable but that the State could not at present, with justice, provide it, is the proposed private system properly established? In view of the fact that the greater part of the money devoted to higher education in this country is from private sources, the use of such means, even by a public institution, would hardly be open to serious question.

The fund has been provided by a man who has retired from business, and so could have no motive in affecting in any way the trend of public opinion. His other acts are consistent with the claim that he is merely concerned with the betterment of mankind. The money is placed in trust, under a large board composed mostly of educators of the highest rank. The benefits are administered automatically under general rules, removing any motive that might affect a small mind under the influence of fear or favor. It is difficult to conceive of a more nearly impersonal plan for administering such a fund. No critic has suggested an improvement.

It has been urged that the money should have been given directly to the State. That would not have been in keeping with the purpose. The aim is to improve higher education. The governing board is required to establish certain standards and then to refuse the benefits of this fund until the institution reaches that standard, and to prevent further benefits to new individuals when the state fails to maintain such standards. If the fund were turned over to the state it would be impossible to apply it effectively to the purposes intended. It has been suggested that the fund should have been given directly to the individual, without asking the consent of any one. This is done in certain cases, where the general rules do not apply. W. T. Harris, who served the public so long and faithfully as commissioner of education, and our own Ex-Chancellor Andrews have been so signalized. But it is evident that this could not be justly done in many cases, as it is difficult to measure relative worth and merit. Such a system, except where the individual has national recognition, would be a most serious evil, as it would place a premium upon efforts to attract attention to the individual and would lead to deplorable extremes in the scramble for recognition.

The provision that the state formally accept the privileges of the fund is a proper deference to the autonomy of the state, and is the same requirement made by the general government in the case of all funds that have been given in trust for educational purposes.

The commercial world offers so much greater reward for the services of the trained man, not only in direct remuneration but in opportunity for investment that will provide a competence, that the cause of education is at a great disadvantage in the extreme competition of the present age. Young men who would be of incalculable value to the world are forced into commercial lines because of the lack of promise for mature and later life. The acceptance of the provisions of the Carnegie Foundation would do more to make an educational career attractive to a man whose interests are in the line of class-room work than would any increase in salary lists now within the means of the State of Nebraska.

POINTS TO BE REMEMBERED WHEN THE CARNEGIE RETIRING FUND IS UNDER CONSIDERATION

The money is in the hands of eminent educators held in trust for a worthy object.

The funds are invested in mortgage bonds, not stocks. The University by being placed on the Retiring List would be no more tied to the steel trust than the man who holds a mortgage on your real estate is tied to your business. The trustees have a right to dispose of securities as they see fit. They now hold bonds in Baltimore & Ohio R. R. Co., Pennsylvania Co., Lake Shore and Mich. So. Ry Co., Chi. Bur. & Quincy R. R. Co., Southern Pacific R. R. Co., Oregon Short Line R. R. Co., New York Central & Hudson River R. R. Co., The City of New York Registered, Northern Pacific R. R. Co., Central R. R. Co., of New Jersey.

Carnegie is not offering the University any money. If we refuse the offer of the trustees the money does not return to Carnegie, but will be distributed by the trustees to professors retiring from other institutions.

The boys and girls of Nebraska are entitled to the best instruction that the State can afford. The placing of the University on the Retiring List will help the University to retain its best men, and to secure some of the best, not the culls of the men who are open to engagement.

The State cannot, under the present conditions, make professorships here equally attractive by increasing the state appropriations for the University unless the legislature is willing to cut the appropriations for other institutions, increase the levy, or run the state into debt. Few members of the present legislature are known to have expressed a desire to increase the University appropriations by any of these processes. The question, then, in brief, is this: Is it worth while to lose our best young men, to take the culls of other institutions, and to leave our old men in poverty because of such reasons as have been presented to the members of this legislature?

The University of Illinois is asking for an appropriation of $3,500,000 for the next biennium.

THE FACULTY

Professor E. H. Barbour went to Neligh to investigate the report relative to the meteoric stone found in that vicinity. The stone was found to be a fake, though there appeared to be some truth in the statement that there had been a slight quake, causing the cupboards to rattle. No data were secured to warrant any conclusion as to the cause.

Professor Barber of the Latin department delivered an illustrated lecture before the Cement Users' association. His subject was "Building Materials of Ancient Rome," especially dealing with concrete. He explained the structure of the many arches, aqueducts and buildings of ancient Rome, as he is very much interested in this phase of Roman history and has made a careful study of the materials which the ancients used in building.

"American Mining Law," by Dean George P. Costigan, Jr., of the College of Law, has recently appeared. The new treatise has new features which make it distinctly different from former publications of the kind. Beginning with a chapter on the history and origin of American mining laws, the work treats of the relation between the mineral lands and public lands, homesteads, timber lands, and national land grants. It takes up the legal questions involved in the location and operation of mines, including the operation of oil and gas leases.

The new veterinary building at the Farm places Dr. Peters in a position to meet the demands that have come upon his department. It is one of the most modern and complete buildings of the kind to be found in the West.

Dr. C. E. Bessey has accepted an invitation from Washington State College to deliver a series of addresses in July at the marine biological laboratory on Orcas Island, Puget Sound.

The Daily Iowan has an editorial in appreciation of "Linden Blossoms," by the late Professor Hrbek, of the Department of Slavonic Languages.

Dr. G. E. Condra addressed the Commercial Club recently on the conservation of the resources of Nebraska.

Biographical sketches of Dr. E. Benjamin Andrews, Acting Chancellor Avery and Judge M. B. Reese, formerly Dean of Law, have been printed in the Sioux City Journal, the Washington Times and other eastern papers. These were written by G. W. Kline, '00, city editor of the Lincoln Star.

"An Investigation of the Optical Properties of Films of Magnetic Properties," by Professor Clarence A. Skinner and Assistant A. Q. Tool, appeared in the December number of the "Philosophical Magazine."

Miss Eaves has recently been added to the faculty of the Department of Political Science She ranks as associate professor of practical sociology and will give a series of courses especially adapted to develop the practical side of sociology. Miss Eaves was a lecturer at Leland Stanford while Dr. Howard was there, and was later in charge of settlement work in San Francisco for seven years. She has recently written a book on labor legislation in California.

Prof. J. E. Almy has an article in the December number of the "Physikalischen Zeitschrift" on "The Minimum Sparks Potential."

ALUMNI TIDINGS

The Alumni Directory has been sent to each member whose address is known. Any failing to receive a copy should write for one and it will be forwarded.

It is of the utmost importance to have the correct address of every member of the Alumni Association in the office of the secretary. An addressograph list is kept and the University Journal and other information of interest is mailed from time to time. It will be appreciated if any one noticing an incorrect address in the directory will notify the secretary. All graduates of courses requiring two years or more of attendance and all students who have attended two years or more are eligible to become affiliated members. All such who send their names to the secretary will be placed on the mailing list.

Marriages.

Leta Stetter, '06, was married Thursday, December 31, to Harry L. Hollingworth, '06. The ceremony took place in New York City, where Mr. Hollingworth has been since '07, an assistant in the Department of Psychology in Columbia University. Mr. and Mrs. Hollingworth will be at home at 508 W. 136th street, New York City.

On Christmas eve, Ethel M. Stokes, '08, was married to Adolph M. Voss, '02. The ceremony was performed at the home of the bride's parents, Mr. and Mrs. H. G. Stokes, Sargent, Nebraska. Mr. Voss was principal of school at Sargent, where he formed the acquaintance that has ripened into marriage. He is serving his second year as assistant inspector of accredited school. Mr. and Mrs. Voss are living at 1246 South Fifteenth street.

Miss Psyche Bruner, daughter of Prof. L. A. Bruner, was united in marriage with Harry S. Smith, '07, '08, December 23, at the residence of the bride's parents at Lincoln. They will make their home at Melrose Highlands, Mass., where Mr. Smith is in charge of the work of the U. S. Department of Agriculture on the extermination of the Gypsy moth.

Edgar H. Clarke, '99, and Helen I. Allen, were married at St. Paul's M. E. church, December 15, 1908. Miss Allen is a former University student. Mr. Clarke is known to all from his work as registrar and as purchasing agent, and from his connection with the Alumni Association. They are living at 1848 Prospect street.

EARLY ALUMNI.

Judge W. H. Snell, '73, was in Lincoln recently for a few days, and will return again for a longer visit, after which he plans going abroad with his family.

Charles E. Stratton, '81, is president of several large corporations engaged in loaning money, with headquarters at Denver and with branches in many of the large cities in Colorado, Nebraska, Utah, California, Wasbington and Oregon.

Laurence Fossler, '81, recently made a tour of the west, and visited several alumni clubs.

Ralph Weston, '82, is connected with a new cereal mill recently erected at Beatrice.

John P. Hartman, of Seattle, Wash., has been honored by the regents of the University of Nebraska by being granted the honorary degree of L.L. M. Mr. Hartman was a student of the University in '82-'84.

Roscoe Pound, '88, former dean of the College of Law, has made the officers' club a present of three volumes of "Battles and Leaders of the Civil War," and twelve volumes of "Campaigns of the Civil War." This is the first installment of a number of books which Dean Pound has promised to send to the club. During his undergraduate work the dean was a captain in Company A, and has always been greatly interest in the work done by the battalion.

W. H. Wagner, '88, who served with marked success for several years as superintendent of schools at Hebron and has been in business, has accepted the principalship of the high school at Auburn.

W. L. Stephens, '89, has prepared a nine weeks' course in English grammar, which is published by the University Publishing Company. Supt. Watson of Valentine, is co-author with Mr. Stephens.

A graduate of the electrical engineering department who has seen service in foreign lands is J. W. McCrosky, '91, who had charge of large electrical developments on the La Plata River, South America. Mr. McCrosky has for several years been the London engineer and manager for the J. G. White Company, which is the largest engineering contracting concern in the world, having developed numerous electrical and other properties in almost every foreign land. In a recent letter he stated that he was on his way through the Andes Mountains to Valparaiso, and from there goes to Buenos Ayres and Cordoba. He will return to London about the middle of April.

Copies of Part 4 of Volume 22 of "North American Flora" have been received at the University. This part of the work, as well as other sections, is being compiled by Per Alex Rydberg, '91. Mr. Rydberg is now curator of botany in the New York botanical garden. The "North American Flora," when completed, will be an immense work of thirty-two volumes, embracing, as it will, a comprehensive catalogue of all American plants, including those of Mexico.

The address of Guy P. Thurber, '91, is 6720 Kelly street, Pittsburgh, Penn.

Vesta Gray, '93, is employed in the Science department of the Hanford Union High School, Hanford, California. Her address is 431 E Eleventh street.

Christian Rohwer, '93, is now farming at Carroll, Nebr. For thirteen years previous to March 1, 1908, Mr. Rohwer has been following civil engineering in various places and capacities. He spent six years as assistant engineer in the bridge department of the Wabash Railway, Moberly, Mo.

Arthur F. Montmorency, '94, is now in Mexico. His address is Apartado 169, Vera Cruz. This information has been supplied by George I. Babcock, '94, who is international secretary of the Y. M. C. A. for Mexico.

W. A. Deary, '95-'96, moved from Bloomington, Nebr., to Wyoming last year. His postoffice is Dixon, Wyoming.

Estella Ducker, '95, is teaching science in the high school at Lead, S. D.

Helen Gregory, '95, spoke in the University convocation recently on "The Music Settlement in New York City." She told of the work which broad-minded people are doing in the way of developing better citizenship through the agency of good music.

Billings G. Almy, '96, '98, is running a prosperous cattle ranch near Ewing, Nebraska. Mr. Almy recently bought another ranch in Boone county.

Daniel W. Livingston, Law, '96, has been reelected county attorney of Otoe county, and is enjoying a large practice.

Victor McLucas, '96, is practicing law in Omaha.

Victor E. Wilson, Law '96, is chairman of the judiciary committee of the House. This position ranks next to the speakership in honor.

D. Milton Davis, '97, has removed from Des Moines, Ia., and is pastor of a church in Piqua, Ohio, 413 N. Downing street.

Clement L. Wilson, Law '97, writes from Tribune, Kan., enclosing a check in payment of subscription for the University Journal. This is a commendable way of showing interest in the University. Mr. Wilson is a bonded abstractor in Greeley County, Kansas

Edgar Banghart, '98, '07, is practicing medicine at Manley, Nebraska.

W. S. Heitzman, '98, is representing Ginn & Co. in Iowa at present, with beadquarters at Des Moines.

A. E. Henry, '98, secretary of the University of Nebraska club at Kansas City, writes that the former Nebraskans held a banquet at the Sexton hotel in Kansas City Tuesday night. "This dinner," he volunteers, "was well attended and the enthusiasm manifested bodes well for this, the second year of our organization."

O. W. Meier, '98, has been elected commander of the United Spanish War Veterans. During the late war with Spain Mr. Meier served in the Philippines with the First Nebraska.

Jean Tuttle, '98, who has been teaching mathematics in the Salem, Oregon, high school, has been elected to teach elementary science in the Lincoln high school. Miss Tuttle formerly taught in the Lincoln high school.

Charlotte Worley, '98, is located at Crawford, this state.

R. H. Hagelin, Law '99, has supplied the addresses of several alumni who have been lost from the records. It will be appreciated if others will do likewise.

Willard I. Le Dioyt, Law '99, is a broker at Brooklyn, N. Y. His office is in the Garfield Building.

Grace MacMillan, '99, has been elected to a position in the high school at Sidney.

Walter P. Thomas, Law '99, is a member of the House from Douglas County.

THE NAUGHTIES.

Don Adams, '00, is now connected with the Union Pacific Land Company of Omaha.

Robert D. Andreson, '00, has resigned his position as manager of the Smith Premier Typewriter Company and is now with the Underwood Company.

F. W. Bartos, '00, of Wilber, is one of the aggressive members of the Senate.

L. R. Ewart, '00, is president of a bank at Eustis, Nebraska.

E. J. Motis, '00, has removed from Halletsville, Texas, to Temple, Texas, where he is now practicing law.

Cora O'Connell, '00, principal of the high school at Ashland, has been offered a position in the Kearney State Normal School for next year.

Bruce Benedict, '01, is to contribute an article to the Nebraska Blue Print on the bonus schedule of wage scales. This is a system for piece work in use in the Santa Fe shops. It encourages increasing the speed of the workmen, at the same time holding to a high grade product. Mr. Benedict is superintendent of motive power, with headquarters at Topeka, Kan.

Callie Gregory, '01, is working on the Daily Star in Lincoln.

Theodore J. Hewitt, Law '01, is now practicing law at Portland, Ore.

Mrs. Minnie Case Ellis '02, writes from China in appreciation of the Journal. Her address is Lintsingchow, China, via Tientsin. Shantung, given as her address in the Alumni Directory, is the name of the province.

G. W. Brooks, '02, has removed from Kendallville, Ind., to 2829 Woodbrook Ave., Baltimore, Md.

A. R. Groh, '02, formerly a reporter on the Lincoln Daily Star, is the author of a clever little story appearing in the December number of the Munsey's magazine. The title is "The Wisdom of Han Ti." Mr. Groh has been abroad on an extended tour since last summer. He reached Naples shortly before the earthquake disaster.

Lawrence E. Hohl, '02, 1st Lieutenant, U. S. Army, is stationed at Fort Mackenzie, Wyo.

Florence E. Richardson, '02, held a fellowship in the University of Chicago for three years, receiving the degree of Ph. D. She received Sigma Xi honors there in '07, and is a member of the American Association of Psychology. She studied at the University of Wurzburg, Germany, in 1908, and is now assistant professor of psychology at Drake University, Des Moines, Ia.

Supt. E. L .Tobie, '02, president of S. E. N. E. A., is very enthusiastic over the coming association, which is to be held at Beatrice, March 31, April 1 and 2. Dr. Willett, of Chicago, will give a lecture one evening

Emma Wilhelmson, '02, has resigned her position in the Beatrice High School to accept the head of the Training Department of Wesleyan University.

Winifred Wolgamot, '02, writes from Grand Forks, N. Dak., that she is pursuing her fifth year's work in the Grand Forks High School, as head of the department of mathematics, and that she is enjoying her work with increasing interest every year.

Clinton M. Barr, '03, has been given the position of Head Master at the Nebraska Military Academy.

Annie J. Beams, '03, is teaching Latin and History in the Lyons High School.

Alice Brookings, '03, has been elected principal of the Dawson schools.

J. R. Fulk, '03, who is superintendent of city schools at Hebron, is a member of the state committee on the N. E. A.

A communication has lately been received from A. W. Gilbert, '03, at Chefoo, China, where he is engaged in work at the U. S. Consulate.

Albert A. Kruse, '03, is now located at 2551 Camden Ave., Omaha, Nebr.

Edith Lathrop, '03, has been elected a member of the Nebraska Reading Circle board. Miss Lathrop is superintendent of Clay County.

Geo. A. Lee, '03, Law '06, recently appointed attorney general of the state of Washington, who was called to his old home in Humboldt, Neb., by the critical illness of his father, stopped off in Lincoln while on his way back to Spokane Mr. Lee was a member of the inter-collegiate debating teams for three years and graduated with Phi Beta Kappa honors.

Mrs. Earl McCreery, nee Miss Mabel Johnson, '03 of Holdrege, died recently at her home, after a three years' illness of tuberculosis.

John Patterson, Law '03, is practicing law at Central City.

C. C. Tellesen, '03, who is studying at Rush Medical College, has removed to 705 Adams St.

Jefferson H. Broady, '04, has just completed a digest of the Nebraska statutes.

Nettie L. Burlingame, '04, principal of the Fairmont High School, has been promoted to the position of superintendent. She was formerly principal of the high school at Hooper.

Chas. E. Alter, '04, is working with his father in the lumber and implement business at Alma, Nebraska.

Robert A. Hamill, '04, is practicing medicine at Chapman, Nebr.

C. A. Mohrman, '04, is stirring up a great enthusiasm for debating at Atkinson and at the neighboring towns. The high school was recently placed on the accredited list.

Alfred S. Redfern, '04, has removed from Odessa, Wash., to Conconully, Wash.

Alice Unthank, '04, is supervisor of music and drawing at Winchester, Ind. Her address is 122 South Meridian St.

J. E. Tanner, Law '04, is located at Wamego, Kansas.

B. R. H. d'Allemand, '05, has changed his address from Forest Service, Washington, D. C., to Garden City, Kansas.

A. W. Billing, '05, is now a missionary in Foo Chau, China. He holds an important position in the missionary work in China.

Mrs. Caroline Wood Camp, '05, is now living in Roswell, Idaho.

Anderson W. Clark, who received the degree of Ph. D. in '05, is superintendent of the Child Saving Institute, Omaha.

Herbert A. Clark, '05, is on leave of absence from Syracuse University and is studying for a Ph. D. degree in physics at Columbia University. He has a position as assistant in the department of physics.

Frances E. Cutter, '05, is teaching science in the University Place High School.

T. N. Fleming, '05, is successfully serving his third year as superintendent of schools at Lyons.

Jane Blanchard, '06, is serving her second year as principal of the high school at Lyons.

Ella May Bothwell, '06, is principal of the Plainview High School.

M. F. P. Costelloe, '06, is located at Fort Morgan, Colorado. He is now engaged in engineering work in the west.

Edwin D. Cutes, '06, is practicing law at Chadron, Nebraska.

Mae Darling, '06, is getting some excellent results from her botany class in the Beatrice High School this year.

Sadie Harmon, A. M. '06, is living at Blue Springs, Nebraska.

Clarence Johnson, '06, is now an instructor in electrical engineering at the University of Kansas.

Stanley Krajicek, '06, is now employed with the Denver Reservoir and Irrigation Company. His residence is at Denver, Colorado.

Frances L. Long, '06, is now head of the science department, Albert Lea College, Albert Lea, Minnesota.

Mrs. R. S. Martin, '06, has moved from El Monte to Alhambra, California, and is planning to organize a University of Nebraska Club.

Dr. Claude Mason, '06, is at present surgeon at the Chieng Mai Mission Hospital in China.

Lena C. Nelson, '06, is engaged in missionary educational work at Meerut, India.

Grace C. Roper, '06, is teaching Latin in the high school at Glenwood, Iowa.

George E. Wilson, '06, is assistant professor of mechanical engineering at the University of Washington at Seattle. In addition to his regular work in the university, Professor Wilson has had charge of some technical courses given by the Seattle Y. M. C. A., and has been engaged in considerable outside testing work.

J. E. Bednar, '07, was recently elected president of the United Komensky clubs which met at Omaha.

Sadie Bernstein, '07, is teaching in the Papillion High School.

Mary E. Billing, '07, is a student in the Moody Bible Institute at Chicago.

Imogene Brewster, '07, is numbered among the Beatrice teaching force.

Thorne A. Brown, '07, is reporting the doings of the House of Representatives for the State Journal.

J. C. Elder, '07, '08, is pursuing his studies at the University of California.

D. P. DeYoung, '07, has been appointed to the United States consulate at Santos, Brazil. He took the oath of office January 1 and is now at his post.

Jessie Dunlavy, '07, is head of the English Department of the Insular Normal School. Rio Piedras, Porto Rico.

Dell Gibson, '07, has been re-elected superintendent of the Plainview schools with $100 increase in salary.

David B. Gilbert, '07, is in the book and stationery business at 340 North Eleventh street, Lincoln. Mr. Gilbert is chairman of the Prohibition state central committee.

Fred G. Hardin, '07, who was an assistant in political economy last year, is now in Washington, D. C., in the government service. Mr. Hardin writes that he enjoys his work very much, which consists at the present time of editing a series of reports on irrigation in the several states.

Carl P. Hartley, '07, who recently received his master's degree, has entered the government service in the department of forest pathology.

G. L. Hedges, '07, has left his position as Assistant Superintendent of Grounds and Buildings, University of Nebraska, to accept a position as designer for the Cleveland Crane and Engineering Company, Wyckliffe, Ohio.

Leslie Higgins, '07, is now one of the reporters of the Omaha World-Herald.

Earl Hill, Law, '07, is located at Central City, where he is engaged in the practice of law.

Ella Husted, '07, is teaching English in the Geneva High School.

W. G. Jenkins, '07, who has been in Cuba since he graduated, returned recently as a result of the termination of the government intervention. He was employed under J. A. Sargent, '03.

Myra Kern, '07, a fellow in the German department, has resigned her position and left school on account of ill health. She has returned to her home in Adams, Nebraska.

L. S. Krake, '07, is teaching in the Yankton S. D. High School.

Dessie Lee, '07, has resigned her position as teacher in the Lyons High School on account of the sickness of her father Miss Lee has been very successful as teacher.

G. A. Pearson, '06, is on one of the government forest reserves, and has his headquarters at Flagstaff, Arizona.

A paper entitled "Histological Studies in the Artemisia Formation," written by Mr. Raymond J. Pool, '07, instructor in botany, appears in the October, 1908, number of University Studies. This is a report of some investigations which Mr. Pool made for the degree of Master of Arts.

W. A. Posey, '07, is succeeding well as superintendent of Thayer county. He was active in the work of the short course of agriculture, which was conducted under the management of the University.

William C. Ramsey, '07, is county attorney of Cass county.

Arthur W. Sampson, '07, has just had published in a bulletin of the National Forest Service an article on "Revegetation of Overgrazed Range Areas." The work is a comprehensive report of Mr. Sampson's activities since entering the department.

A. G. Schreiber, '07, who was in the public service in Cuba, returned recently. He is now in the San Luis valley, where he will work under B. E. Forbes, '05, together with B. A. Newton, '04, and M. P. F. Costello, '06.

News of the engagement of Denton Slaughter, '07, located at Salt Lake City, Utah, has been received in Lincoln. In his senior year Mr. Slaughter was a captain in the cadet battalion, and also a member of the Innocents.

Charles R. Weeks, '07, has been elected to take the Department of Agriculture at the Peru State Normal school. Mr. Weeks has successfully superintended the Fairmont public schools for the past two years.

Roy Winship, Law '07, is located with the firm of Clark & Miller in the Free Press building at the corner of Thirteenth and N streets, Lincoln.

L. L. Zook, '07, is a scientific assistant in the United States Department of Agriculture and is now stationed at Chico, California. Mr. Zook was formerly an assistant in field crops at the Nebraska Experiment Station.

William N. Anderson, '08, is studying medicine at the University of Nebraska Medical College at Omaha, Nebraska. His street number is 1314 South Twenty-sixth street.

Frank Builta, '08, is reporting the senate proceedings of the legislature for the Lincoln Star.

T. R. Cooper, A. M. '08, spent last summer in studying windbreaks for the United States Forestry Service in Kansas and Nebraska. He is now in California where his work will be largely experimental in determining the relation of various forest species to site. He has also started to make a collection of the flora of the state.

Ethel C. Field, '08, is now holding a scholarship in Botany, University of Nebraska.

George A. Fitzsimmons, '08, is a law student at the University of Nebraska and will take his degree in June.

Leonard F. Gieseker, '08, is soil analyst at the University Farm.

Winifred E. Gould, '08, is teaching English and history in the high school at Ponca.

John L. Harrison, '08, is an assistant engineer of the Bureau of Public Works, Manila, P. I.

O. V. Hough, '08, is a member of the firm, Thorpe & Hough, Engineers and Contractors, Iola, Kansas.

Hazel H. Hyde, '08, is teaching in the grades at Newman Grove, Nebraska.

Clarence Johnson, '08, has gone to Colorado, where he will enter the employ of an engineering concern.

Otto Kotouc, '08, was elected business manager of the United Komensky clubs at a recent meeting in Omaha. Mr. Kotouc is a representative from Richardson county in the Nebraska Legislature and is chairman of the house committee on public schools.

Harriet Long, '08, is attending the library school at Albany, New York.

Edward P. McLaughlin, '08, is vice-president of the Nebraska Lumber and Coal Company, Lincoln, Nebraska.

John McNicol, '08, is a coutracting electriciau, Lincoln, Nebraska.

Doyle B. Mullikin, '08, is a practicing physician at Munden, Kansas.

Joseph A. Murphey, '08, is secretary and treasurer of the Roberts Grain Company, Omaha, Nebraska.

Ralph B. Murphy, '08, is taking law at the University of Nebraska.

W. S. Overman, '08, is teaching at Red Cloud, Nebraska.

John M. Paul, '08, is practicing law at Wakefield, Nebraska.

Noel L. Provost, '08, is the Y. M. C. A. secretary of the South Carolina Agricultural College, Columbia, South Carolina.

Edua Rudersdorf, '08, has resigned her position at Newman Grove, Nebraska, owing to ill health.

Edward A. Schmid, '08, is with the Union Pacific railroad as electrician, Omaha, Nebraska.

O. J. Shaw, '08, who is superintendent of the Aurora Electric Light and Power Company, of Aurora, Nebraska, has been making investigations with a view of establishing an electric light plant at Broken Bow, Nebraska.

Nat R. Simmons, '08, is now living in Colorado City, Colorado. His address is 527 Colorado Ave.

John W. Thomas, '08, is ranching at Kimbro, South Dakota.

Ralph E. Waldo, '08, is now studying law at the University of Nebraska

Minor F. Wasson, '08, is engaged in farming at Sidney, Nebraska.

Vernon V. Westgate, '08, is an instructor in Horticulture, University of Nebraska.

W. N. Whelan, Law '08, has gone to Washington, D. C., with Cougressman Maguire as his private secretary. Mr. Whelan graduated from the Law School with high scholarship honors.

Earl E. White, '08, is engaged in the real estate business at Ft. Morgan, Colorado.

THE NEWEST—MID-WINTER '09

A. B., 4; B. Sc. 7; LL. B., 3; A. M., 8; Ph. D., 1.

Arthur Leo Anderson, B. Sc., Seward.

Charles Theodore Borg, LL. B., A. B. '04, Lincoln.

Thomas Albert Butcher, A. M.; Ph. D. 1900, Nebraska Wesleyan University, University Place.

William Hodge Dobson, B. Sc., Cedar Rapids.

Sidney Thomas Frum, LL. B., Homer.

Bruce Fullerton, LL. B., Lincoln.

Fred Benjamin Garver, A. B., Fairfield.

Jessie June Glass, A. B., Lincoln.

Paul Goss, A. B., Lincoln.

Carl Pierce Hartley, A. M., A. B., '07, Lincoln.

Frank Carter Hawks, B. Sc., Albion.

Homer Clyde House, Ph. D., A. B. 1896, Doane College, A. M. '98. Principal Model High School, Peru.

Fritz Konrad Krueger, A. M.; Berlin Gymnasium, 1907; Leopoldstr, 4, Kottbus, Germany.

George Roger La Rue, A. M.; B. Sc. 1907, Doane College; Lincoln.

Emery Winfred Leamer, A. B., Dakota City.

Ernest Merle Little, A. M., B. Sc. '07, Lincoln.

Leon Joseph Pepperberg, A. M., A. B. '05. U. S. Geological Survey, Washington, D. C.

Andreas Chris Peterson, B. Sc., Omaha.

Claude Kedzie Shedd, B. Sc., Loomis.

Charles Edward Temple, A. M., A. B. '06, Lincoln.

Karl August Ulmann, B. Sc., Beerschof, Russia.

Alvah Linn Weaver, B. Sc., Schuyler.

Alice Etna York, A. M.; A. B. 1907, Nebraska Wesleyan University; Teacher in High School, Traer, Iowa.

A GLIMPSE OF THE NORTHWEST

Laurence Fossler

When, somewhere along Thanksgiving time, the gracious invitation reached me at the campus to be the representative of the University and, consequently, the guest of the evening at the reunion of the annual alumni gathering of the Puget Sound U. of N. club, I had no difficulty in hearing the "call." In the classical phrase of Dr. Roscoe Pound, the question was carried and put without further remarks or debate. The banquet was set for Thursday, Dec. 17, and the place Seattle. Realizing the importance of effecting the proper conjunction of person, time and place, I set out betime, viz.: on the evening of Friday, December 11th. The Billings trains delivered me safely to the Great Northern, which, in its turn, brought the wayfarer to Spokane towards the evening of Sunday, December 13th.

Miss Edna Bullock, librarian at the Spokane high school, evidently distrustful of the ability of guileless university professors to take care of themselves when off the campus, had the kindness to meet me at the train and to conduct me to the Pennington, one of the cheeriest inns that ever sheltered travelers. This place was chosen evidently because of its close proximity to the famous Davenport restaurant, it being, in fact, under the same roof. A elegant Olympia oyster pan-stew (and accessories) proved the proper lubricant to a visit and a chat such as only teachers and their one-time pupils can and do have. While enjoying the hospitality of Spokane I, of course, met a number of old University students. I can only mention the very pleasant visit with Mr. and Mrs. F. W. Myer at their cosey bungalow in Manito Park, and the delightfully informal dinner which Miss Helén Dean, now teacher of Latin at one of Spokane high schools, gave in my honor, being the representative of the U. of N., at the Davenport. She was even so thoughtful as to ask my almost life-long friends, Dr. and Mrs. Little of Moscow, Idaho, down for the occasion, and though Mrs. Little could not come—the distance from Spokane is about 90 miles—Professor Little's presence added not a little to my fullest enjoyment of the occasion. I should have said that an address or two to the high school students, assembled in mass-meeting, a "doing" of the wonderful sights of the thriving city, a visit to my old friend and teacher, Professor Samuel Anghey, a meeting of other old Lincoln friends, e. g., ex-Chancellor Crooks (Wesleyan) and his daughter, a spin through the city and a visit to the remains of the International Apple Show, which had just closed the day before my arrival in Spokane, had taken up what time I could spare from my visit with the alumni.

On the morning of Wednesday, December 16th,

the train hurried me along the beautiful North Yakima country. I would have stopped off gladly sonat Yakima to shake hands with W. W. Robertson and his good wife (formerly Grace Barrett). But time was precious and the town had not yet rubbed the "sand-man'" out of its eyes. So we sped on towards the beautiful Cascades, on towards the Coast, towards Seattle. About the middle of the afternoon we caught the salt air; the long hills, covered with fine residences warned me to get my traps together, and that I was at my journey's end, at least with the first part thereof. As I expected, my old college friend and roommate, Mr. J. P. Hartman, was at the station but, contrary to my expectations, he, after bundling me up in sweater and blankets, rushed me into his fine automobile and gave his son Harold, the chauffeur, carte blanche to whirl us through the city at a rate that defied police regulations. The auto registered some 125 miles of sightseeing that afternoon and the day following. I was made to see—I didn't need to be made to admire, their parks, their thoroughfares, their public improvements, their university, their wharfs, their totem-pole, club-houses, and what not. Seattle appears to be a wonderful city, fairly throbbing with life and energy—echt groszstädisch. The tenderfoot is fairly amazed at the extent of their public enterprises. The entire site of the city is being transformed, re-made. "The mountains are made low, and the rough places, plain." Excavations, often involving the working away of whole squares, yes squares upon squares, of hills 100 to 150 feet in height, are going on. The marshy tide-flats are being changed into suitable sites for business blocks. Structures often involving hundreds of thousands of dollars are removed and taken down to bring the ground they stood on to the proper grade. Mr. Thompson, the city engineer of Seattle, a very capable and fine man by the way, informed me that the contemplated changes in the topography of the city involved the removal of material equal to one-fourth that involved in the construction of the Panama canal.

A few more addresses at the high school and at the University of Washington provided a healthy appetite for the Alumni banquet at Hotel Washington, set for Thursday evening. I had informed the committee on arrangements that my address would be on "Things Worth While," but that, as a precautionary measure, they should have a menu that would conform to those specifications. They had done so. Who was there? Well, I have on my menu card some fifty names. I find names such as H. E. Shotwell, now assistant city engineer of Seattle; W. H. H. Forsythe, now pastor of the M. E. Church at Everett, Wash.; Robert Moritz, A. E. Evans, W. V. Lovitt, H. L. Bolby, all connected with the U. of W.; Katherine Melick, Elva Dempster, Katherine Sterling, all teaching in the high schools of Seattle; Minnie Jansa, director of physical training of Tacoma; J. P. Hartman, John P. Fogarty, Elias A. Wright, Harry E. Wilson, J. W. Hoar, all legal lights; A. E. Wolff, secretary of the Y. M. C. A.; the Judges W. H. Snell and C. M. Easterday, both of Tacoma. Lack of space only forbids my giving the entire list of former Nebraskans who answered to the roll-call. In fact it was hard for me and hard for every one to realize that around that board were lawyers, ministers, teachers, physicians, business men, engineers, judges, etc. Mr. Harry Wilson's apt quotation from Oliver Wendell Holmes struck a responsive chord in every breast. "Yes," we all said, "yes

Hang the Almanac's cheat and the catalogue's spite;
Old time is a liar! We're twenty to-night."

I fear we impersonated youth somewhat too successfully; at any rate, I did not reach my quarters till the wee sma' hours o' the mornin'. The toasts included some remarks from the outgoing and the incoming presidents of the association, Mr. J. P. Hartman and Judge W. H. Snell respectively, an excellent poem from Miss Katherine Melick, an equally fine talk on "The Boys, Then and Since Then," by Mr. Harry E. Wilson, and the address of the writer.

A delightful launch trip on the Sound with some friends on Saturday completed my stay at Seattle. That was truly a memorable outing. To the south majestic Mt. Rainier (in Seattle alias Mt. Tacoma (in Tacoma) towered above the clouds. To the north Mt. Baker, to the west the wildly jagged Olympic range, to the east the snow-clad Cascades. I could fully realize how the northwest hatte es den Menschen angetan, i. e. had cast a bewitching spell over its population. The spell was over me too.

I should have mentioned ere this that the U. of W. was formerly located on a campus about the size of our own, on a spot now in the very heart of the growing city. Fortunately the regents foresaw the situation and removed the institution out near Lake Washington where a splendidly situated tract of some 500 acres and over is at the disposal of the university authorities. The Alaska-Yukon exposition opening up next June will be held on the grounds, the semester closing somewhat earlier to accommodate the visitors to the fair. Several new large and commodious buldings will be placed at the command of the univrsity authorities upon the closing of the exposition. I must not omit to state that under the leadership of Mr. Hartman, the president of the board of regents, the university authorities have leased the former campus to enterprising business concerns who are erecting large, modern business blocks thereon. At the end of sixty years the improved blocks will all revert to the university, thus insuring a perpetual princely income to the institution, an income estimated at almost a million dollars a year. Not bad management, that!

An equally delightful three days' stay at Tacoma as the guest of Judge Snell, the twin eldest brother of the U. of N. alumni, and a visit to Tacoma's educational, social and industrial centers (where, by the way, I met quite a number of old Nebraskans) completed my stay in the hospitable northwest. So many of my former acquaintances, students and others, had extended the glad hand, the welcoming hand to the tramp that he was loath to bid them farewell. But having never before visited the coast states he obeyed the impulse of the "Wanderlust" and, accordingly, on Thursday, December 22nd, he turned his face southward and thus began the homeward run.

But, Mr. Alumni Editor, I shall stop these rambling notes for fear that you will throw them into the waste basket. But even if you were to do so you could not take from me one of the most pleasant experiences of my life, my visit to the northwest.

Alumni Song.

Sung at the Alumni Banquet, June, 1908.

By Flora Bullock, '97, '99.

1. Hail, Al - ma Ma - ter, ev - er dear! We come with loy - al, greet - ing:
2. Here let us sing of days of old, And boast thy an - cient glo - ries;
3. Brave, Al - ma Ma - ter, brave and free, May fu - ture years still find thee.

Shout - ing a - gain the good old cheer, Thy boun - ty still en - treat - ing.
Tell - ing a - gain the tales we've told, Thy true and won - drous sto - ries.
Ev - er of truth thy teach - ing be, No false-hood chain shall bind thee.

Some in stran-ger lands a - far from home, The light thou gav - est bear - ing;
Ev - er on - ward speed the thiev-ing years, The joys of youth de - rid - ing;
Fair Ne - bras - ka lies, a sun - loved land, Thy no - ble wis - dom shar - ing;

Oth - ers safe in har - bor ride, And some are now forth - far - ing.
Safe with us thy mem - 'ries dear, In loy - al hearts a - bid - ing.
Guide her ev - er in the light, For Truth's sake great - ly dar - ing.

All, Al - ma Ma - ter, proud - ly raise The song of those who love thee.
Aye, we will sing the days of old,— The song of those who love thee.
Boun - ti - ful Moth - er, lead us on,— The host of those who love thee.

CANFIELD MEMORIAL NUMBER

The University Journal

Devoted to the Interests of the University and of Education in the State of Nebraska.

Vol. V. LINCOLN, NEBRASKA, APRIL, 1909. No. 7.

JAMES HULME CANFIELD, Ph. D.
Chancellor University of Nebraska, 1891-95

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

HENRY B. WARD

JAMES HULME CANFIELD

The University of Nebraska paid respects to the memory of ex-Chancellor Canfield in a fitting manner Friday morning, April 23, in Memorial Hall. Acting Chancellor Avery presided, and delivered the opening prayer. There was a full musical program. Three speakers paid tribute to the services of the great organizer and leader, Professors Caldwell and Fling, and Hon. Victor Rosewater, a former Regent of the University of Nebraska.

Regent Whitmore read the following resolutions, in behalf of the Board of Regents, and the University Senate:

"It was the mission of Chancellor Canfield, in Nebraska, to solve the problem of its belated higher education. Never was man confronted with harder conditions. The industries of the country were prostrate, the financial interests of the state were desperate. The legislatures of both 1891 and 1895 appropriated almost a quarter of the state's revenues to aid drouth sufferers. Settlers were leaving the western counties by thousands. Unwearily the new chancellor traveled over Nebraska, speaking wherever an audience was assured, and preaching always the evangel of opportunity, as offered by the Board of Regents, and long before provided by the founders of the State. Thus, in four years, he saw an institution of less than five hundred students grow into the true University of a million people. Withal, he organized and enlarged its forces, and extended its benefits to students far beyond the shadow of its walls.

"He was of the finest type of American manhood, and one of the best gifts of the old New England college to the West in the pioneer days of Western education. All his life long he served his fellow man, and nowhere more joyously or successfully than among us in Nebraska. His dreams were not of his own greatness, but of the greatness and helpfulness of the University which he served, and he rejoiced as he marked it, full of promise, taking shape before his eyes. To others he gave with gladness the best there was in him, and he asked for no return. Of such a man, the noblest memorial remains in the hearts of the thousands of young men and women whom he loved and inspired, and who remember him with gratitude and affection. Of him the world may say, with rare truthfulness, He was loved by his fellows."

JAMES H. CANFIELD—A MANY-SIDED MAN.

Address of Victor Rosewater, Editor Omaha Bee, at Memorial Exercises, April 23, 1909.

We cannot fully realize the height of a mountain when standing at its base but must view it at a distance to appreciate its towering proportions. In the same way we usually get a true perspective of a man who towers among his fellows only after he is taken away from us and we can measure the real value of his work only after it is completed.

Our lamented friend and former chancellor of this University had in him the making of a leader of men and he would have led in whatever field he might have chosen for his life work. Dr. Canfield was the son of a clergyman, and had he followed in the footsteps of his father, he would have been a powerful man in the pulpit and an unlifting factor in religious work. When he graduated from college, he engaged first in railroad construction, and had the transportation industry claimed him, he would have died a great railway president. He studied law and was admitted to practice at the bar, and had he proceeded to perfect himself as an advocate, he would surely have occupied a front rank in the legal profession. But he was destined to be neither a clergyman, nor a railway president, nor a lawyer, but to devote himself to the responsible task of directing the education of the constant succession of the rising generation and, as a consequence, he became a great teacher, a great educator, a great librarian, a great inspirer of a small army of young people who will, in turn, deepen his imprint and pass it on in an ever widening circle.

It is natural and inevitable that in paying tribute to the memory of one who has passed away, personal relations are recalled and assume an interest perhaps out of proportion to their real significance. I have known Dr. Canfield for nearly twenty years. At first, as a mere casual acquaintance made at a meeting of the American Economic Association or American Historical Association, I am not quite sure which, when he was still teaching history, English literature and political economy in the University of Kansas. After I had, myself, finished my university course I was invited by him to deliver a brief series of lectures at this University, and he did me the honor to listen to the opening lecture. That illustrates one of his most lovable characteristics—his readiness at all times to encourage beginners at no matter what cost to himself of time and patience.

When two years later I was called to fill temporarily a place on your board of regents, he

had already taken his departure to a new field of action, but I remember that we kept closely in touch with him for helpful advice toward solving problems that had their inception in his administration. When, not many years after, he became head of the great library at Columbia University, I felt that he had again come closer to me because Columbia was my alma mater and on my periodical visits to the metropolis, it was always an added pleasure to find him at his desk in the beautiful treasure house of books and to talk over with him the many subjects of uppermost interest to keen observers of current events in government, science, education and particularly the art preservative of arts, with all of which he kept constantly abreast.

A librarian is a care-taker of books, but Dr. Canfield was also, in a small way, a writer of books and his little book of advice to the college student is, in my judgment, a remarkable production. It is filled with practical suggestions dedicated to "The Children of My Educational Sons and Daughters," drawn from his own personal experience, and yet from cover to cover of nearly 200 pages in his innate modesty the closest he comes to a personal narrative is this:

"I once thought that there could never be a period in my own life in which there would come more restlessness, more anxiety, more uncertainty, a keener sense of general ignorance and inadequacy, than were experienced during the last half of my senior year in college. What I was prepared to do, what I really desired to do, how I should go about it, what was to be the first step, where I should begin life, how I could earn my first dollar, under what circumstances I could be sure of earning it at all; these questions tormented me, by night and by day. To pass by a single step, almost in a single day, from dependence to self-suport, from a comfortable and assured allowance to absolute uncertainty as to how the necessary expenses of the first week should be met (without turning again to the generosity which had marked all the past), to feel that one simply must decide, must do something, and still not know what; all this, and more than need be written here, made life a burden indeed. All this has been kept very fresh in memory by living it all over again, year after year, with seniors who have come to me with their difficulties and perplexities, hoping and begging for some word of advice, or some bit of experience which would bring them light, not infrequently even seeking to relieve themselves of all responsibility by saying, "I will do whatever you say. But, fortunately rather than unfortunately, this may never be finally decided by any one but yourself, without grave danger of grave error."

In this same suggestive volume Dr. Canfield enumerates five elemental and fundamental characteristics, which he urges students to cultivate, and they are worth repeating here because they reflect ideas and ideals which he unquestionably kept before himself as a guide for his own conduct. Here are his five fundamentals:

1. Sobriety of thought: as the very opposite of the too general flippant temper of American life. The great questions of time and eternity are not to be regarded as of trifling importance.

2. Simplicity of life: for only so will you, as either student or graduate, find time for real life about which we have been already talking together.

3. Absolute integrity: without which one cheats himself of far more than he cheats the world, easily and entirely defeats the very end of his college life, and runs swiftly and surely into entanglement and confusion and dire disaster.

4. Courage; since the determined will, the indomitable temper, the "I will it" of a born autocrat, the self-mastery which must precede all other mastery—these and more are possible only to the brave soul.

5. Strength: which is the sympathetic and intelligent development and the successful co-ordination of all the powers of the mind, body and spirit; and without this edvelopment and co-ordination no man is well educated or well trained, nor can he possibly hope to secure the broadest and best education or the soundest training.

Dr. Canfield was a charitable man. His charity was not that which contented itself with cold preachments but gave the benefit of the doubt to the supplicant even to the point of being occasionally imposed upon. I can illustrate this with extracts from a letter written by Dr. Canfield to me in April, 1899, asking for information about a certain person, whom he had accommodated with a loan. He writes as follows:

"On this date named, about noon, a well-dressed gentlemen came to my office, in some perturbation, and stated that he was Mr. Blank, formerly connected with the exposition movement in your city, and one of the committee sent to Columbus the year before to secure the attention and co-operation of Columbus merchants, etc. That he had been at Washington on some business with the government in connection with the closing up of the accounts of the Omaha Exposition, had reached here on his return journey and had left the sleeper at the Union station to get his breakfast, and when undertaking to pay for his breakfast at the close of the meal had found that his pocketbook. containing all his money, passes, etc., had been lost or taken from him. He had spent the rest of the morning at the station wondering what he could do and how he could do it—had happened to recollect at the last moment that I was a Nebraska man, that I had met this committee when he was here before, and that I might remember him.

"I am always ready to bank ten dollars on a Nebraska man under any circumstances—and though there was just a little wave of suspicion went over my mind at the time, he seemed so utterly reputable in every way that I gave him my check without hesitation—by which he was to telegraph for funds to be wired him at Cincinnati and pay his fare to Cincinnati where he expected to stay that night, having some exposition business there the next morning.

"I have heard nothing from him since, and a letter to him some time ago does not seem to have reached him. I have about come to the conclusion that this is one of my several periodical contributions to the traveling public—but it occurs to me that if it is not too much trouble I would like to know from you whether there is any such person at Omaha or otherwise, and if so, if you happen to know anything about him.

"Do not put yourself to any special trouble in this matter. I confess it is more sheer curiosity than anything else that prompts me to write

unless it be that this gives me an opportunity to recall our pleasant relations in days gone by and to express my continued respect and regard."

That certainly shows that he was intensely human and, like the rest of us, prone to pay for our experiences and pocket our losses and then go through the same experience again.

Let me read from still another letter, which I am sure will fall on sympathetic ears because it relates to a subject which has recently been a focal point of discusison here. It is in answer to a note of mine, enclosing something I had written, calling attention to the unjust discrimination against the state universities embodied in the terms of the original grant of the Carnegie foundation for retirement pensions for college professors, dated New York City, May 3, 1905.

"I have yours with your editorial on the possible serious results of Mr. Carnegie's discrimination against State University professors. I thought of this the moment I saw the announcement made of his gift, and wondered who were his advisers. My own personal opinion is that which you express at the close of your editorial: that it may be possible, that it ought to be possible, to secure a change in these conditions. I shall certainly be glad to do whatever I may in advancing, in this way, the interests of that large body of teachers with whom I have been for so many years so delightfully associated."

Let me add just one word more, which should be a solace and a comfort for those of us in Nebraska who look back with fond recollections to his association with our University. Nebraska was always a green spot in Dr. Canfield's memory His last visit to Nebraska was in an official capacity as representing Columbia University before its alumni association. Unfortunately, he encountered one of those rare Nebraska products known as a "blizzard" and delayed trains prevented him from keeping all the appointments he had made. From correspondence, (dated January 7, 1904), immediately after his return to the east, I take this one sentence, which assures us that his visit was to him a joy despite the adverse weather conditions:

"The week which I spent in Kansas and Nebraska was delightful beyond words to express."

CHANCELLOR JAMES H. CANFIELD.
MEMORIAL ADDRESS BY H. W. CALDWELL

When the news came a few days ago that James H. Canfield's friendly voice was silenced forever, those of us who were here from 1891 to 1895, felt that a friend—one of nature's noblemen—had been taken from us before his work was done. Yet when we pause to summarize what he had accomplished, and to note the impress he had made on four schools and in four states, we may say that a full life has been lived. A new Englander by birth, a westerner in spirit, and in achievement, Chancellor Canfield returned to the east and to Columbia University to fill out the last years of a useful and busy life in the midst of boyhood friends. Chancellor Canfield was versatile in his accomplishments. He began his career in Michigan as a railroad superintendent, and made good. He studied and practiced law with success. As its president he directed wisely the work of the National Educational Association. He was a successful teacher of American history and civics in the University of Kansas. As Chancellor of the University of Nebraska for four years, and President of Ohio State-University for four years, he left a permanent impress on the educational forces of these two states. For the last ten years he has been the head of one of the greatest university libraries in America, the library of Columbia University. In these brief sentences an outline of the achievements of this splendid personality may be summarized.

But today I do not wish to treat of Chancellor Canfield in the cold historical spirit; rather I desire to speak of him as one of the very few men who have won my love as well as my respect. Perhaps I may be partial and see only the good side of the life of this man. Be it as it may, his virtues to me so far outweigh his faults, that I have tried in vain to formulate in words, a statement of the qualities in his life I would wish changed. To me he is ever the true and faithful, the friend who never deserted, the man ever ready to encourage, to urge forward to more earnest endeavor. It may be that I cannot judge fairly, but I cannot refrain from expressing my conviction that he was the one leader who has come to us who fitted into our needs most perfectly. He may not have been the ablest man in intellectual power, nor the greatest scholar who has graced the chancellorship of our University, but it seems to me that in the sum total of the qualities that go to make the ideal chancellor he stood foremost.

How I wish I had the power to paint him for you who never knew him, so that you might understand the hold he had and has on some of us. May I try in my feeble way to let you see not only a leader but a man! Chancellor Canfield was a perfect dynamo of energy. Quick in movement, active in mind, he was planning and doing with a rapidity that fairly took your breath. His fingers struck the keys of his typewriter with such rapidity and accuracy that you wondered at both qualities. Many a morning 7 o'clock found him in his office, and the midnight hour might strike before he felt his day's work for the University was ended. Yet this man of energy was as simple and plain in life, as the humblest worker in the fields. In his home you felt the genuineness of his life, in the very simplicity that characterized his every act. His stocky frame carried a heart that was as big and full as the body that encased it. To those in need or in discouragement he had a word of cheer. He never forgot a friend; nor did he neglect the little courtesies of life that so few of us remember. I think no Christmas in the last ten years has passed that a card and often a little note has not come on Christmas Day bidding me as well as others the joys of the season. And this was no perfunctory action. How vividly the little visits we have had from time to time in these last years come back to me. The friendly arm around the shoulder, and the jolly voice as it said, "Well, Caldwell, how goes it with you?" This busy, kindly man was also full of good cheer, humor and story. There was nothing morose or sour in his make-up. The humor of the occasion appealed to him, and brought the merry kindly laugh that we all re-

member so well. A little anecdote serves to show his hold on the student body, and his readiness to take or make a joke. Up to 1892 hats were worn in the halls of the University building universally. One day in chapel he said in his smiling way, "How much more chivalric it would seem if all men would doff hats when in the halls," then added, "You may wear yours whenever you see me with mine on." From that day to this, the custom has prevailed in general to follow the suggestion. A few years ago, the last time, indeed, that he was on this campus it was my good fortune to be his guide over the new buildings. Standing in the old University hall I called his attention to the above circumstance, not noting that he had his hat on. Instantly he turned on me and said. "Caldwell, I know you told that story to get even and get my hat off," and off it came. Pardon these personal reminiscences, but remember I loved the man.

Chancellor Canfield was an organizer; systematic in the minutest detail; orderly to a remarkable degree. Every minutia was in hand, and he knew the workings of the University and of every department. No semester ever passd that he did not visit my classes appearing and disappearing so silently that one hardly knew of his coming and going. Some men would have been swamped in this multitude of details, and would have had no time left for the larger fields of labor. But it was not so with him. He was widely informed, and could make an acceptable, if not a profound, address on almost any subject. It was said he could talk technically to a gathering of swine breeders in the morning; equally well to a group of bankers in the afternoon; and then give a popular address in the evening. Perhaps he was not the great scholar; he has left us no monumental work in brass or book; but it may be that his life was none the less rich, or none the less helpful on that account. The world needs leaders as well as scholars. With a good voice, a ready use of language, a superior capacity as a story tellers, the power of this enthusiast was potent in its influence in Nebraska, in winning friends for the University.

It was this dynamic, resourceful, simple and skillful leader who came to Nebraska just as the field was ripe for the work he was best prepared to do. I can only hurriedly summarize the results of his untiring activity during the four years he was with us in the moment I have left. In the first place he made the University known to the people of the state. Education was made popular, and he aroused the young men and women of the state to desire a higher education. Where before they had never thought of college, or had thought it beyond their means or powers, he convinced them that it was possible and worth the effort. He made one sentiment the dominant one in every public address, namely that the University was only a part, the crowning part, of the public school system, the four grades above the twelfth. The high school and the University constituted parts of one great whole. "Come," he said, "to your school." That he was successful, the statistics of the growth of the University under him show. The year before he came, 513 students were enrolled—four years later, his last year, and the numbers were 1,550. May I quote from some words of mine written for another purpose to show this work? "The unorganized material for a great university existed in the state, both in the faculty and in the general conditions. Chancellor Canfield put all into the fiery furnace of his enthusiasm and in four years brought forth results that were amazing." "The University was known only by the few, and was appreciated by still fewer when he came. When he left it was the pride of the state as a whole. In general, these four years constituted a period of growth in all directions. Organization was perfected, articulation with the state was secured, standards were raised, and the field was enlarged. At the beginning of the period the attendance was small and the curiculum confined to a narrow circle of studies. At the close it might well be called a University, the numbers and the wide outlook both justifying the name." These words written some years since express now as then my belief in regard to James H. Canfield's influence on Nebraska's educational history.

Once when he was asked in regard to his politics, he replied, "My entire political creed, my entire political activity, can be summed up in a single sentence: 'A thousand students in the State University in 1895; 2,000 in 1900." And his creed was more than fulfilled, as there were 2,209 in 1900. The above sentence epitomizes his life; devotion to the University.

It goes almost without saying that he was a great advertiser; but it was of the University, not of himself he spoke. Doubtless he knew that if the University became great, his reputation would not sink. Yet his own name rarely appeared except as it was necessary to use it to forward the needs of the school. And his glory was enough. When he left Nebraska its university stood second only to Michigan among the schools of the mid-west, a rank it has not been able to sustain in these more recent years.

But I must close, and yet I have scarcely touched on the relations of Chancellor Canfield to the faculty, and the students. But the Alumni and the faculty will ever keep green the memory of him whose life came to a close all too soon, ending while his powers were yet in their prime. This man inspired many; for one I can say that my life has been the better from contact with a man so pure and helpful. If I have been able to aid in the least in carrying forward the torch of learning and in inspiring any student to higher thinking, and more devotion to his work in life, a part of it at least may be credited to this man whose life and deeds mean so much to us, and whose death we commemorate in these services.

CANFIELD THE YOUTH

Two incidents in the life of ex-Chancellor Canfield will perhaps be interesting. In explaining to the writer how he chanced to work in the West, he said that President Mark Hopkins, just before his graduation at Williams, advised the young men of his class to settle down at once in the East, but first to see something of the West and feel its spirit. As soon as he had received his degree, Canfield accordingly went to the railroad office and bought a ticket for as far West as his money would allow. So he found himself one night, at the end of a division of the Chicago, Milwaukee and St. Paul railroad, in Iowa. In the morning he got a "job" driving a cart on an em-

bankment. He soon rose to be foreman and eventually became division superintendent.

Earlier, when perhaps a Freshman, Canfield had a collision with his professor in Latin. After reciting one day upon the text, his professor asked in what direction the Via Sacra ran in Rome. Canfield answered promptly, but was corrected, his teacher saying it ran at right angles to the course he declared. Canfield probably looked incredulous, for the next day he was called up, and incidentally asked the same question. But his answer was the same. The next day he was called upon to translate, and was later asked again in what direction the Via Sacra ran. He gave again the same reply as at first, at which the professor informed him that he was suspended from the class.

Some ten days after, Canfield was notified to re-enter his Latin class. In due time the professor called "Canfield." Canfield arose to recite. "In what direction does the Via Sacra run?" Canfield answered as before. The professor flung down his text and said, "Canfield, why do you refuse to receive instruction? Why will you not say that the Via Sacra runs as I say it does?" "Because," says Canfield, "I know you are wrong." "By what means are you able to know more of the Via Sacra than I do?" "Because, spending the winter in Rome two years ago with my sick father, I tramped all over the old portions, and studied out the directions of the streets." "Why, then, did you not say so at the start?" "You gave me no opportunity." From that moment the man and the youth became close friends, and Canfield in after years often carried his sometime professor, who was subject to pulmonic hemorrhages, in his arms, and nursed him in Adirondack camps.

I may say that this incident was told in the course of a conversation concerning the professor of Latin, who later taught Gothic in graduate work at Yale. This man became president of Williams in 1881.

L. A. SHERMAN.

DR. CANFIELD'S COMING TO NEBRASKA.

I had been acting chancellor so long that I was very tired, and finally insisted that the regents must elect a chancellor, or I should resign at the June meeting. This was at their April meeting in 1891. They asked "who is your man?" I answered "Professor Canfield of Kansas." So Mr. Gere, Mr. Morrill, Mr. Burnham and I were named as a committee to consult with him. On writing to him about a meeting he answered, "Don't come to Lawrence; I'll meet you in Kansas City at ——— hotel." So Mr. Gere and I went, Mr. Morrill and Mr. Burnham failing to join us. In the hotel Dr. Canfield had arranged to meet us in a private room where we were free from interruptions. We talked nearly all night, and in the end Mr. Gere, the chairman of the board, virtually tendered him the chancellorship. Dr. Canfield with characteristic promptness said, "I'll run up and see your University next Saturday" (three days later), but he stipulated that no one else was to know of his visit. He came early in the morning, and we showed him the whole plant on the campus. He asked to see the farm, and we went out and looked it over, and at the end of the day he took his train for Kansas. Just before leaving the city he said to me, "I'll go home and cool off, and then write you whether I shall accept the offer." In a few days his favorable answer came.

He was elected at the June meeting, and on July 1 he assumed his duties. Here again his action was characteristic. He was very simple and direct in his methods and hated display and formality. On the evening of June 30, I vacated the chancellor's office, having previously told him that it would be ready for him the next morning. In the morning he walked in, went up to Mr. Westermann and holding up his hand began reciting the oath of office, and asked Mr. Westermann to write it out and sign and seal it, and then being the duly qualified chancellor he went to work. That was all the installation he wanted, and it was enough.

In a very little time he knew everything about the University, and we never thought of him as a Kansan. He became a Nebraskan the moment he crossed the state line, and it was not long before everybody in the state knew him as a live, hustling, very versatile Nebraskan. And this is what he was for his four years of service. He never let up, but constantly worked for Nebraska and the University. To it he dedicated wholly all of his time, all of his energies, all of his bodily and mental strength. Even after he had concluded to accept the tempting offer of the Ohio State University, he worked up to the end of his term, to the end of the day, and then without stopping for any formal farewell he slipped out of his office one evening and quietly went to the train and slipped away from the city and the state that held him in such high esteem. He merely closed his work here, and went to his new work in the simplest manner possible.

CHARLES E. BESSEY.

THE LATE DR. CANFIELD AS SEEN BY HIS STUDENTS

The commencement of 1891 was looked forward to with unusual interest. Professor Canfield of Kansas was to be the orator. The students had heard reports of his brilliancy as a speaker and his wonderful qualities as a man among men. There was another reason, too, why his coming was of peculiar interest. It was rumored among the student body that he would be called to the chancellorship. Every student felt that it would be a great calamity if Professor Canfield should decline the position and we were all on our good behavior, hoping that we might do our small part in making a favorable impression upon him. Whether we succeeded or not I do not know. It is more than likely that we did not rise at all in his consciousness. But he certainly impressed us as only students can be impressed.

In the fall of 1891 we realized that there was "something doing" about the chancellor's office. Chancellor Canfield was an exceedingly versatile man. For a considerable part of his administration he was his own private secretary and office boy. His office hours usually ran from 7 o'clock in the morning until they tapered off imperceptibly in the darkness of the evening; all the time was spent in intense activity. I remember particularly an interview that I had with him in which I asked him to give me a testimonial for a position in school work. The interview lasted

about four minutes, as I judge, from start to finish. The chancellor met me at the door, took me cordially by the hand and, without waiting to allow me to lead up to the subject asked me at once whether he could be of any assistance to me. As soon as he had heard enough of my request to guess what I was going to say, he turned to his Remington and ran off personally a recommendation. A moment or two later he handed me the faultlessly typewritten page. Then putting his hand on my shoulder, he led me to the door and the first thing I knew I was outside bearing my precious recommendation and the feeling that I had Dr. Canfield's good wishes as well. But the thought that impresses me now is, how skilful he was in doing me the favor that I desired, leaving me more pleased with the attention that he had bestowed upon me, and getting rid of me in four minutes.

The student body in those days varied from 500 to 800. It is said that Chancellor Canfield knew every student personally, but whether this be true or not I feel safe in saying that no chancellor either before or after has known so great a number of the students. Probably no chancellor has ever had so great a personal influence. This is illustrated by the fact that the suggestion on his part that students remove their hats when walking through the halls of University buildings was almost instantly adopted by the student body and the influence of this suggestion has had a favorable effect unto the present time. Strangers often comment on the orderliness of our students in comparison with those of other institutions.

The Canfields were exceedingly democratic in their manners. The writer ate at the same table with them for some months at an S street boarding house. The boarding house was not at all exclusive and the chancellor's family mixed freely with the college students from the freshmen up. Dr. Canfield met the boys as a boy himself, debating frequently with them on any topic that happened to arise. I remember having a somewhat heated argument with him on the question as to whether the dummy clocks used for jewelers' signs were made in accordance with an understanding among the manufacturers that the time indicated should represent the time of the death of Abraham Lincoln. Chancellor Canfield insisted that such was the case, and quoted his authorities. I maintained that such was not the case and that the story that there had been a manufacturers' agreement was apocryphal. My offer to produce statistics that the hands did not indicate the time of the death of Abraham Lincoln made no impression whatever, as he brushed it aside with the statement: "Well, they have probably been repainted by some local man who did not understand the signification of the original sign."

During Chancellor Canfield's administration the bulletin board was a place to which all students were attracted. If the chancellor had any word of advice or exhortation his typewritten message, signed in his characteristic handwriting, would appear for the edification of the student body. It was customary to step over about 10 o'clock in the morning to read the bulletin board and one would hear the words exchanged: "Well, I wonder what Jimmie's got for us this morning?" His messages were always brief and pointed, and on one or two occasions produced a decided sensation.

Chancellor Canfield was a good story teller, although with his ready wit and fluent use of language he did not have to depend on stories to make his talk interesting. He liked to tell stories, giving his own experiences and frequently, according to his own account, he played the reverse of the grand part. A story that he once told with great gusto illustrates his type of humor. To appreciate the point of the story one must recall that he was a short, thick-set man with a massive head and swarthy complexion. The story runs that at one time he met a Southern colonel who grabbed him by the hand and said: "O, Dr. Canfield, I am so glad to make your acquaintance. You remind me of one of my heroes of my boyhood days. You are almost the picture of Douglas." Canfield replied—to use his own words: "I took his hand in mine and squeezed it until I saw he was beginning to wince and then I said, 'I am so glad I look like your idol. I should not wonder if I were related to him. At any rate I have always admired the career of Fred Douglass.'"

During the summer of 1895 the writer was in Germany, but I very well remember how the news came as a distinct shock that we were likely to lose our chancellor. The little American group felt that his resignation would be an irreparable calamity, We had not learned at that time that institutions are infinitely greater than the men who preside over them and that in an institution like the University of Nebraska great leaders may come and go but the University itself continues its onward progress and attains in some degree at least to the ideals of its leaders, even when their personal presence is removed.

S. AVERY.

Chancellor Canfield had immense popularity with the students, from first to last. He was possibly the best-loved man ever connected with the government of the University. As an institution becomes larger, the gap between the Chancellor and the students widens inevitably. It grows less and less possible for the mass of the undergraduates to feel much personal acquaintance with their head. Their very number renders much individual contact out of the question. In Chancellor Canfield's day the students felt almost as though their Chancellor were one of them. Enthusiastic applause greeted his every appearance among us. There was no wall of separation. His genial, vigorous personality put us at ease at once. He held our respect; his accessibility and cordial spirit never tempted to over-familiarity; but he was so overflowing with vitality and humor, so practical, so simple, yet so sincere, that we felt it a delight to consult him. Nor did his suggestions ever fail to justify themselves in the working out.

Many incidents recall how Chancellor Canfield entered into the spirit of student life. On one occasion a college paper contained "Lines on the Chancellor's Hat," reference being made to a rather imposing high gray hat, which he wore from the time that he first came among us. A

consultation of the files of the paper reveals that the lines were as follows:

"Though old and white and not in style,
'Tis a hat we all adore,
For now 'tis his, our Chancellor's,
The hat his grandpa wore."

Next morning the Chancellor's bulletin board, then a conspicuous feature in the hall of the main building, displayed an answering quatrain defending the hat, which groups of delighted students gathered to read. The Chancellor's verses were so witty and so pat that one regrets their failure to be preserved.

When Miss Willa Cather was editor-in-chief of the Hesperian, the predecessor of the Nebraskan, Chancellor Canfield contributed regularly a column entitled "Executive Excerpts," addressed mainly to the students, and touching on problems and topics of current interest. He rarely wrote anything, as he rarely did anything, that did not bring immediate results.

Chancellor Canfield's memory for students and their personal histories was extraordinary. It is said that few Nebraska men of the time of his chancellorship, no matter how short had been their stay at the University, ever sought out Librarian Canfield at Columbia without hearing their names promptly spoken and kindly inquiry made concerning classmates and friends.

LOUISE POUND.

CANFIELD THE EXECUTIVE

At the time the Board of Regents of the State University decided to call Dr. James H. Canfield from Kansas, to the position of chancellor of the Nebraska State University, it was considered somewhat of an experiment, as he had not, previous to this time, occupied a like position.

From the beginning of his administration it was evident that Chancellor Canfield was the right man in the right place. The people of this state were not, at that time, in touch with the University. The Chancellor in his work was overflowing with enthusiasm. His ability, physical vigor, and keen insight into affairs, enabled him to keep in touch with the minutest details of the educational work and business affairs of the institution. He accepted invitations to make addresses to all kinds of gatherings, and wherever he went he interested the people in education, and popularized the University.

In dealing with his associates Chancellor Canfield exhibited great tact. He was in every sense a diplomat. Before presenting his scheme he generally found a way to win over to his side those that were necessary to carry out his views. If he found serious opposition and concluded that he might not be in the right, he could change front with the greatest apparent ease and enter into the work of carrying out schemes directly opposite to his former convictions, as carefully as if his own views had been adopted.

I remember he once said to me, "Mr. Morrill, I have about concluded that your opposition to the game of football is right, and I think we must take some action to keep the students from playing the game, it is so brutal." Very soon after this the University team played in Omaha and won the game. A great number of University students and almost half the people in Lincoln were at the depot to welcome the boys on their return; the University band was palying, bells were ringing, whistles blowing, and the rejoicing was general, especially in University circles. The Chancellor was at the depot—he could not resist taking part in the occasion—and when the column was formed, he proudly marched at the head through the streets. This act of the chancellor's won the everlasting friendship of the boys; they worshipped him and ever afterwards willingly made what they considered a sacrifice when he requested them to do so.

His work in Nebraska was of great value to the state and to the cause of Education. No chancellor has done more towards the upbuilding of the University.

C. H. MORRILL.

CANFIELD THE LEADER

Not always do need or opportunity and the man meet. Sometimes they do. Such a co-incidence there was when James H. Canfield came to Nebraska as the Chancellor of the State University. The need in the state was that of an actual sequential interest and effort of the educational means of the state,—the secondary schools and the University. At the time of the coming of Chancellor Canfield the writer was also new to the educational work of the state, but, new as he was, he probably felt, as did many other school men, that between the high schools and the State University there was a sort of gulf fixed whose crossing he was somewhat loath to attempt.

This feeling without doubt was needless, yet its existence was none the less real. The causes of it are foreign to this brief appreciation. Whatever the cause, however wide the separation of the educational means, the cause has been removed and the separation has ceased to exist. Whereas once there was lack of unity of purpose and waste of educational effort there is now a remarkable continuity of both purpose and effort in educational affairs in the state.

To not a large number of men in the state may the wonderful comparatively recent progress in education be credited,—to none more than James H. Canfield. There might have been before his coming some subtle influences working to this end, but with his coming there was introduced a new, a concrete, a tangible unifying element,—the sympathetic co-operation and the ever ready helpfulness of the Chancellor. Superintendents in small towns and principals of high schools in those days will never forget the inspiration of words of cheer and of wisdom which came no more from the professional zeal of the educational leader than from the genuine heart of the man who understood.

Educational porgress in Nebraska is a matter of favorable comment far and wide. When praise for this progress is justly distributed, if it ever can be, a large part of it will be rightly given to James H. Canfield whose energy, good cheer, wisdom, and sympathy, were the foundation of much of it.

A. H. WATERHOUSE.

For full information regarding Summer Session, University of Nebraska, address "Director Summer Session, Lincoln, Nebr., Station A."

AGRICULTURAL EDUCATION

A. E. Davisson

OUTLINE FOR A COURSE OF STUDY IN HORTICULTURE FOR USE IN RURAL AND HIGH SCHOOLS

By Vernon V. Westgate, Instructor in Horticulture

Laboratory Exercises

The following exercises may be used for laboratory work in Horticulture. If you do not find it practical to have the laboratory work separate from the lectures, however, you can demonstrate many of the experiments to the students during the regular class hours.

Some of the exercises that are given can best be used in high school work and others are more adapted to the rural schools. Some can be carried on equally well in both. The order of exercises as they are given here is not necessarily the order one may wish to use. The laboratory work should correspond to the lectures that are given. The outdoor exercises should be given in good weather and those exercises which can be performed within the building may be used during bad weather.

Seed Germination Tests.

References: Nursery Book, pp. 1-25. Principles of Plant Culture, pp. 22-32; 182.

1. Influence of the Size of Seed on Germination and Growth.

Prepare a small quantity of good soil by using about 2 parts of common garden loam soil, 1 part of sand and 1 part of well rotted manure. Next obtain a small quantity of radish seeds and count out 25 of the largest and 25 of the smallest seeds. Plant the large seeds in a pot or box containing the prepared soil. Plant the small seeds in a separate pot. Label each with your name, the date and the name of the experiment. Place the pots where the temperature is suitable for germination and where they will get sufficient light. Also keep them well watered. After the plantlets come up, have the students observe the relative vigor of those in each pot. What causes the difference in size, vigor, etc.? What does this teach us in respect to seed selection? Thin out the plantlets and continue taking results until radishes form.

2. Relation of the Manner of Germination to the Depth of Planting.

Take a tall glass jar (fruit jar will do) and plant beans at depths of 5, 3 and 1 inches, respectively, in one side of the jar. Plant peas at like depths in the opposite part. Plant these seeds next the glass so that we may observe their germinating. Use moist soil when planting and keep the jar covered afterwards so that further watering will not be necessary.

Observe the results. Are the bean plantlets able to reach the surface from all the depths? Are the peas? Is there any difference? If so, what causes it? Why can seeds that germinate like peas be planted deeper than those that germinate like beans?

3. Influence of the Age of Seed on Germination.

References: Principles of Plant Culture, p. 31.

Test the germination of 2 equal lots of parsnip seed, one lot two years old and the other from the previous season's crop. Notice the per cent of germination in each case. What causes the difference?

4. Influence of Air on the Germination of Seed.

References: Principles of Plant Culture, pp. 26-28.

Take two wide-mouthed bottles. Fill one of them with water that has been boiled in order to drive out the air. Fit a cork into the bottle and then allow the water in it to cool. When the water has cooled sufficiently raise the cork and quickly drop into the bottle 25 seeds of either water cress or lettuce. Replace the cork and push it down firmly to the water so no air will be left in the bottle.

Fill the second bottle with cold water. Put 25 of the same kind of seeds into it and leave the bottle open to the air. After ten days or two weeks notice the number of seeds that have germinated in each bottle. When the seeds have all germinated in the bottle that was left open, remove the cork from the other one and observe the results in that for several days. What causes all these differences?

Propagation

5. Study of Bulbs.

References: Principles of Plant Culture, pp. 88-191. Nursery Book, pp. 26-32.

Bulbs are compact buds surrounded by protective layers of tissue. They are usually formed at the base of the parent plant and when subjected to proper conditions will produce new plants. Dig up bulbs of the lily. Have the students study their structure and compare them with the onion. These are examples of the two main types of bulbs. Notice the smaller bulbs found about the base of the large bulb. How long will it take the bulbels to produce flowering plants?

Corms are quite similar to bulbs. Dig up a clump of gladiolus. Notice the corms and compare them with bulbs. Also examine tubers, such as the potato, sweet potato, dahlia, etc. Notice their characteristics. Learn the names of plants propagated in these various ways.

Forcing Bulbs—Take a small box or flower pot. Fill it with good rich soil and plant a hyacinth bulb in it. Also pot up other bulbs like tulips, narcissus, etc. Put the pots away in a cool place so that roots will develop. After plenty of roots have formed bring the pot up to the light and water at intervals. Note the rapid development of the flower shoots. Why do we not put the bulb in sunlight before the roots have developed?

7. Division of Plant Roots.

References: Nursery Book, pp. 32-34. Principles of Plant Culture, p. 188.

Take the class out into a garden and show them how to propagate such plants as rhubarb, asparagus and other perennial herbs. Show them how it is possible to divide up woody shrubs in a similar manner.

8. Propagation of Plants by Various Kinds of Layerage.

References. Nursery Book, pp. 35-43. Principles of Plant Culture, 184-188.

Take the class out and illustrate these various methods.

Mound Layerage: Mound up soil about the base of a gooseberry, currant, dogwood, etc. Explain how roots will develop from the covered portions and how new plants may be obtained. Name other plants which you think could be mound-layered successfully.

Serpentine Layerage: Take a long grape came that is attached to the parent vine. Bend it over to the ground and cover a bud or so with earth. Continue covering the cane with soil at intervals of 2-3 feet. If this could be performed late in summer new plants would form. Explain to the class just how all this takes place. What is the advantage of this method for propagating? Is it best to obtain few or many new plants from a single cane?

Tip Layerage: Observe some black raspberry plants and notice how the tips of the canes have taken root. Tip layering, as this process is called, is the best method of propagating black raspberries. At what time of the year do these canes take root? When are they severed from the parent plant?

Slips

9. Softwood Cuttings.

References: Principles of Plant Culture, pp. 191-194; 199-200, and 205-209. Nursery Book, pp. 65-72.

Take a small box or flat and put about three inches of good clean sand in the bottom of it. Water the sand thoroughly and pack and smooth it. Now take cuttings (as directed in references) from such plants as the geranium, coleus, carnation, etc. Pinch off most of the side leaves from the cuttings, except a few near the tip and place the cuttings in rows in the sand. Place this box where it can get heat from beneath, if possible. Why is this bottom heat necessary?

Examine the cuttings occasionally and notice where the roots are forming. How long does it take for roots to develop on the different kinds of cuttings. Will young or old wood form roots the best? Why? Should cuttings be taken above or below the nodes or joints?

10. Dormant Cuttings.

References: Nursery Book, pp. 62-65. Principles of Plant Culture, pp. 200-205.

Cut off twigs of the previous season's growth from such common shrubs as the spirea, dogwood, mock orange, polish privet, etc. Make cuttings about 6-8 inches long from these twigs (being sure that you have at least two buds to each cutting). Why are two buds necessary for every cutting? Tie these cuttings in small bundles with the tops pointing in one direction and label the bundle. The cuttings should then be set in a cold frame with the base of the cuttings up or else packed in moss and placed down cellar in a cool, dry place. If they are put outdoors they should be covered with sand and several inches of straw in order to prevent them from freezing. In the spring take these cuttings and set them out in rows in the school garden, leaving at least one bud above ground, when planting them. Have your class take notes from the time the cuttings are made until young shrubs begin to develop. You will notice that a peculiar kind of tissue, called a callus, forms at the base of the cuttings. Is this "callousing" important? Why? Why should cuttings be taken early in winter and kept in a dormant condition until spring?

11. Root Grafting.

References: Nursery Book, pp. 107-113. Principles of Plant Culture, pp. 224-226.

Take seedling apple tree roots and cut them up into three-inch lengths. Also take apple twigs, from the previous season's growth, which have been gathered in the fall and cut them up into six-inch lengths. Make a long sloping cut on the lower end of each cion and also a second vertical cut into the sloping cut. (See Nursery Book, p. 108, for details.) Make similar cuts on the tops of the piece roots. Unite the two so that the cambium layers come in contact and then tie them firmly together.

How are the apple twigs or cions cared for? Tell how the seedling or root portions are grown? Why is it necessary for the cambium layers to come in contact and why are the grafts tied?

12. Cleft Grafting.

References: Nursery Book, pp. 118-129. Principles of Plant Culture, pp. 216-219.

Study carefully the method of cleft grafting. Make some cleft grafts before the class and explain to them the use of this method for top grafting. Why do we top-graft a tree? How large limbs can be successfully top-grafted. Why is it necessary to cover the grafted portion with wax? When is cleft grafting done?

13. Shield Budding.

References: Nursery Book, pp. 94-107. Principles of Plant Culture, pp. 230-234.

For practice in budding, use as stocks large willow cuttings, from one-half to an inch in diameter, that have been started into growth in a vessel of water. For bud sticks you may take small twigs of another variety of willow. Make a T-shaped cut through the bark of the stock. Raise the bark at the juncture of the cuts and insert a bud which is cut from the bud-stick. Tie the buds firmly in place. Have the students practice this method until they have it well in mind. Why is budding important? At what season of the year is budding done outdoors? Why? What fruits are commonly propagated by "shield" budding? When does the bud start to grow and how long after budding is it until we set the different kinds of trees in the orchard?

14. Cion Budding.

References: Principles of Plant Culture, p. 212.

Cion budding is useful in top working old trees. It is easier for the beginners than shield budding and has the advantage over that method of requiring no tying.

For practice in cion budding use short pieces of willow limbs one and a half or more inches in diameter, which have been started into growth in water. Make two parallel cuts through the bark lengthwise of a limb about a quarter of an inch apart and an inch or so long. Let one of the cuts extend from a quarter to a half inch above the other and from the top of this make a cross cut to a point above the other longitudinal cut. Next take a cion three or four inches long and make a long sloping cut through it at the lower end. Insert this cion with the sloping cut inward under the bark from the side of the longer parallel cut and shove it down under the

bark in such a way that the strip of bark made by the two long cuts will hold it firmly in place. No tying is needed. On large limbs a T-shaped cut may be made in the stock and the cion inserted like a shield bud. When can cion budding be done?

Study of Fruits.

15. Classification of Fruits.

References: Principles of Fruit Growing, pp. 2-7. How to Make a Fruit Garden, pp. 190-201.

Give the students a classification of all of our common fruits. Tell them some points of resemblance and difference among the various varieties. What is the difference between a pome and a drupe? What is the most important tree fruit? What is a citrous fruit? What is a deciduous fruit?

16. Study of Nebraska Fruit Districts.

References: Bulletin No. 1 Nebraska State Horticultural Society on the Varieties of Fruits Recommended for Nebraska.

Have your scholars draw an outline map of the State of Nebraska. Then let them take copies of the above bulletin and locate on their maps the fruit districts in which they live. After they have located their fruit district on the maps, let them copy from the bulletin the special varieties of fruits recommended for that particular district. Have them tell all they can about the importance of fruit growing in their locality.

17. Study of Orchard Conditions.

References: Principles of Fruit Growing, pp. 37-223. How to Make a Fruit Garden, pp. 61-95.

Familiarize yourself regarding the proper slopes for orchards, soil conditions, orchard tillage, etc. Then take the class out to visit orchards. Show them all of these orchard factors and conditions. What is the best slope for orchards? What fruits like a heavy soil? What ones prefer a light soil? Which kinds of tillage do you think would be best? Why are fertilizers necessary in orchards?

18. Pruning Trees.

References: Bailey's Pruning Book, pp. 76-132. How to Make a Fruit Garden, pp. 95-109. Principles of Fruit Growing, pp. 340-343.

Take the class out to an old apple tree that needs pruning. Tell them how it should be pruned and then let them help you prune it. Show them how young peach and apple trees should be pruned. When do you think it best to prune old orchard trees? Why is it better to prune close to the trees instead of leaving short stubs? Why should wounds be painted after pruning?

19. Pruning Grapes.

References: How to Make a Fruit Garden, pp. 158-163. Pruning Book, Chapter 8 or pp. 431-494.

Go with your class to a neighboring vineyard and prune a grape vine, using the Fan system of training. Train another vine after the Kniffen system? Show how vines are pruned when you wish to practice the Munson system of training. Which styles of training will require the least amount of work? Which system of training will give the fruits the most light? When should grape vines be pruned?

20. Study of Fruit Buds.

References: Pruning Book, Chapter II or pp. 21-75.

After you have this chapter on fruit buds well in mind, go out some time during winter and examine an apple limb. Show the class the differences between fruit buds and leaf buds. Tell them the history of a particular branch, showing them the growth, in detail, for each year. Examine the plum, cherry, peach and grape and show them where and how the fruit buds are produced on these fruits also.

21. Diseases and Insects Affecting Fruits.

References: How to Make a Fruit Garden, pp. 109-131. Bailey's Pruning Book, Chapter III. Principles of Fruit Growing, pp. 344-377.

Have the class gather diseased leaves and twigs from the various fruits. Tell them the names of these diseases, how they work on the plants, in what ways they are injurious and how they may be controlled. Let the students bring fruits to class. Show them apple scab, cedar rust and injuries such as those due to curculio, codling moth, etc. Have them write short essays on some of the more important diseases and insects that are injurious to fruits.

22. The School Garden.

References: Principles of Vegetable Gardening (Bailey), pp. 271-450. Vegetable Gardening (Green), pp. 14-41; 83-100.

When spring comes, have the scholars prepare to plant school gardens. Set aside a certain part of the school grounds for this work and if possible give each student an individual plat for his garden. Such individual ownership will tend to develop more interest in the work than where all work together.

Have the students plant peas, lettuce, radishes, beets and such flower seeds as petunias, zinnias, sweet alyssum, portulacca, etc. Have them study the growth of these plants until school closes late in the spring.

Try if possible to get the students so enthusiastic in this work that they will start similar gardens of their own at home, as well as on the school grounds.

23. Uses of Ornamental Trees and Shrubs.

References: Landscape Gardening (Waugh), pp. 15-25; 93-98; 107-144.

Take the class out on field trips. Give them the characteristics of the various trees, shrubs and flowers used in ornamental gardening work. Let them learn how to identify these various plants that you show them. Point out different methods of grouping plants so as to give the best effects. Have the students plant shrubs and trees on the school grounds. Make a planting plan for them to follow out when placing such plants. What are the different uses of trees? What is the difference between a tree and a shrub?

NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS

At the meeting in Chicago, March 26, the following secondary schools in Nebraska were accredited for the year 1908-9: Beatrice, Blair, Brownell Hall (Omaha), Falls City, Fairbury, Fremont, Hastings, Hastings Academy, Holdrege, Kearney, Lincoln, Lincoln Academy, Nebraska City, Nebraska Military Academy, Nebraska Wesleyan Academy, Norfolk, North Platte, Omaha, Pawnee City, Seward, South Omaha, Superior, Tecumseh and York.

The University Journal

PUBLISHED MONTHLY
By the Teachers' College of the University of Nebraska

Entered April 13, 1906, at Lincoln, Nebraska, post-office as second-class matter, under the Act of July 16, 1894.

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Industrial Education—[1] George E. Condra, Professor of Geography and Economic Geology, the University.
[2] A. E. Davisson, Head Professor of Agricultural Education, the University
[3] Chas. R. Richards, Head Professor of Mechanica Engineering and Practical Mechanics, the University.
Language—Louise Pound, Assistant Professor of English Literature, the University.
Physical Education—R. G. Clapp, Professor of Physical Education, the University.
Science—R. H. Wolcott, Professor of Anatomy, the University.
Summer School—Paul H. Grummann, Director Summer School, the University.
University News—E. H. Clark, Purchasing Agent, the University

Plan to attend the meeting of the N. E. A. at Denver, July 5-9.

Supt. W. L. Stephens is the orator for Alumni Day, Wednesday, June 9.

Indications point to the largest enrollment in the history of the Summer School.

All Alumni, and Affiliated Alumni are invited to be present at the Alumni dinner, at the University Farm on Wednesday, June 9.

Nebraska should have more active members in the N. E. A. The volume of proceedings, which is sent to all active members annually, is well worth the membership fee even if it is impossible to attend the meeting.

In the death of President J. M. Pile, of the Nebraska Normal College, the State has lost a great educational leader. He was an inspiring teacher, a strong organizer and a true man. He has an enduring place in the lives of the men and women he has inspired, and has a lasting monument in the institution that he has founded and made possible for the State of Nebraska.

Arrangements have been made with Superintendent B. D. Hayward, of the Nebraska Military Academy, by which the building will be available for rooming purposes for the students at the Summer Session. Forty men can be accommodated. All rooms are in splendid condition and are equipped with single beds and all modern conveniences. Special terms will be made known upon application to the Director.

Room and board can be secured at Hays Hall during the Summer Session at a reduction of twenty per cent from the ordinary rates. The price of the room depends upon location in the building. Write the Director for information.

The last Legislature appropriated $20,000.00 to purchase a site for the medical campus in Omaha. The Board of Regents has already appointed a committee to examine sites and to recommend the one which, all things considered, is the most desirable for the institution. Following the location of the site, certain prominent citizens in Omaha have indicated their intention of erecting buildings for specific portions of the work in the medical schools. These factors augur a bright future for the College of Medicine which may be expected in a new dress to make even greater progress than has marked the very brief but successful seven years of its existence.

The University has recently published the address delivered before the Improved Live Stock Breeders' Association by Hon. George Coupland, Regent of the University. Mr. Coupland gives the results of experiments carried on by him in conjunction with Prof. Alway, of the University, undertaken for the purpose of determining the depletion of soil fertility. Careful analysis was made of samples of soil from fields, the precise history of which Mr. Coupland had known for thirty years. Tests were made from virgin prairie and from fields that had been cropped under different conditions for thirty years. The conclusions drawn from these tests are of vital interest to all who are concerned with the conservation of the resources of Nebraska. The address is worthy of careful study and can be secured by addressing the Registrar, University of Nebraska.

THE CARNEGIE FOUNDATION

The friends of the University who have studied the matter carefully will regret deeply the failure of the Legislature to pass the resolution approving the application of the Regents for admission of the University to the accepted list of the Carnegie Foundation for the Advancement of Teaching. The measure passed the Senate by a vote of 25 to 8, thus placing the question beyond the lines of party politics. In the House as in the Senate the matter did not become a party question and a change of three votes would have secured the passage of the resolution. Its defeat was due wholly to personal influence.

The fears of some that a failure to accept the offer now would prevent the opportunity in the future, were not well founded. The fund is sufficient to provide for all institutions of the class for which it was intended, and assurance has been given that Nebraska will be accepted whenever the proper application is made.

HIGH SCHOOL FETE DAYS

Friday, May 14, and Saturday, May 15, have been designated as High School Fete days at the University, and elaborate programs are in preparation, to include visits to all departments and points of interest on the Campus on Friday morning, an assembly with music and brief addresses at 11:30 o'clock, and a luncheon in Banquet Hall at noon. The visits to places of interest on the Campus will be continued after luncheon until 2:15, when the Annual Track Meet of Nebraska High Schools will be held. In the evening will occur the contest of the champions of the districts of the Nebraska High School Debating League for the State Championship. At 9:00 o'clock on Saturday morning there will be an assembly at Memorial Hall, at which time the medals will be awarded for the athletic events. This will be followed by a gymnastic exhibition by the Department of Physical Education of the University. Both men and women will participate. It is expected that the annual inspection of the cadet battalion, by the United States Inspector, will take place during Saturday morning. Also there will be special excursions to the University Farm, the Capitol, and other places of interest, for the benefit of any who may not be interested in other features of the morning. The excursions will be continued Saturday afternoon for any who may desire to spend the entire day in the city.

It will be noted that on Friday visitors will have an opportunity to see the University under actual student conditions. High Schools are invited to send the entire graduating class to visit the University. The class should be accompanied by a teacher, who should assume the responsibility for the members while they are in Lincoln. All possible assistance will be given by University committees for providing accommodation for those who remain over night.

THE UNIVERSITY AND THE LEGISLATURE

The legislature appropriated the proceeds of the mill rate to the use of the University as it did two years ago. In addition to this the following items were appropriated out of the General Fund:

For Farmers' Institutes.....$20,000
For the Sub-station at North Platte..... 25,000

These items are the same as the corresponding items for two years ago.

For land and permanent improvements $100,000 was appropriated out of the General Fund as against $50,000 of two years ago. Twenty thousand was also appropriated out of the General Fund for the purchase of land for a campus for the Medical College at Omaha. The total amounts then outside of the mill rate amount to $165,000 as against $95,000 of two years ago. On the other hand it is to be remembered that through the working of the Scavenger Act the mill rate brought in a much large sum than it can be expected to yield during this biennium. The question having been raised as to whether expenditures authorized under the Scavenger Act were appropriated in due form two years ago, it seemed desirable to put through a deficiency appropriation of $100,000 to clearly legalize the expenditures of the past biennium. The experiment stations were provided for out of the University Fund entailing an expense of $20,000. These were transferred from the Temporary University Fund to the General Fund on the general appropriation bill but the item was vetoed by the Governor. It is somewhat uncertain just what effect this veto will have. If the appropriation is legal it will mean that $20,000 must be taken from the University proper and used for the establishment of two sub-stations. It is likely that the grand assessment roll will decrease somewhat under the new system of assessment. Taking all these things into consideration it is evident that there will be less money available for the support of the University's interests at the Farm and City Campus than there was two years ago, although the number of students has increased by approximately one-fourth.

SCHOOL HISTORIES OF ENGLISH LITERATURE.

Louise Pound.

Probably the five brief histories of English literature now used most widely in high schools and colleges are Halleck's (American Book Company), Pancoast's (Holt & Company) Newcomer's (Scott, Foresman & Company), Simonds (Houghton, Miflin & Company), and Moody and Lovett's (Scribner's).

A chief value of the first-named book, Halleck's, lies in its simplicity and clearness. The arrangement and the nature of the presentation make it evident that the author is an experienced and successful teacher, for pupils of secondary school age. His book easily deserves the popularity that it has won for itself. The whole is simple enough for young students, is interestingly presented, and yields a clear idea of essentials and main development. Good judgment was exercised regarding both omissions and inclusions. The weakest points about Principal Halleck's book are the expression, which is not always unimpeachable, and the scholarship. Many minor inaccuracies or obsolete entries were corrected, however, after the first edition. The book is not addressed to mature students, or meant to serve as anything more than an elementary guide. Teachers who have used it testify to a strong liking for it.

A much fuller book, suitable for classes of slightly greater advancement, is Pancoast's, a history which has long held its own. It came into wide use soon after its publication in 1894, and has been frequently reprinted. Last year it appeared in a new and enlarged edition. Generally it is used together with the author's "Standard English Poems" and "Standard English Prose," which it is designed to accompany. Mr. Pancoast's book devotes more attention than most others of its kind to giving the historical setting, and it has the fullest and most modern reference lists. If the book has faults, these lie in the distribution of emphasis, and in the presentation. The author does not always succeed in throwing into prominence what is most important for students to learn on first approach to special subjects. Sometimes he fuses history, biography, and criticism in such a way as to leave fragmentary his presentation of all three. The teacher finds that frequently the impression left with the student is needlessly piecemeal or confused. Clearness and simplicity of outline are necessary in the setting forth of any large subject; the author must have the power to detach the vital things and throw them into proper prominence. One doubts whether Mr. Pancoast has this gift in sufficient degree, although he seems to understand its value and to have it in mind. As an illustration of his occasionally misleading distribution of emphasis, take his devotion of nine pages to an account of Defoe and his works, while he gives two to Dr. Johnson, two to Charles Lamb, yet three to Bolingbroke.

As might be expected, from other books by the same author, Professor Newcomer's history has clear outlines, sound scholarship, and the literary touch in expression. He departs from precedent chiefly in the disproportionately large attention given to nineteenth century authors. To English literature before the time of Elizabeth, he devotes 84 pages; to its development from the time of Elizabeth till Wordsworth, he gives 148 pages; to English authors from Wordsworth on, he gives 157 pages. Thus nineteenth century literature wins from this author almost as much attention as all English literature of the two centuries preceding. No doubt, for many classes, Professor Newcomer's full treatment of the modern period will add to the value of the book. The same author's "American Literature," published earlier, is a model of its kind. The "English Literature" is slightly less successful. It gives the impression of having been more hastily put together, and is a shade less succinct and fresh in its treatment. But, like the earlier book, it is entertainingly written, and warmly appreciative. It is never merely analytical or "dry." Both teacher and pupil will find it stimulating and suggestive. A possible danger in using it is that the hasty sketching of the earlier periods does not give the average student quite a safe enough substructure to build upon.

In his apportionment of space, Professor Simonds follows more conventional lines. Also he aims at making his treatment largely historical, leaving aesthetic appreciation to be worked out by the teacher and the class. Many who prefer that their students be left with a free hand as regards literary criticism have been attracted to the use of the book by the very circumstance of its omissions. Profesosr Simonds' methods are scientific and scholarly. His history is less readable and entertaining than Professor Newcomer's; indeed its treatment is somewhat cold; but it is always adequate, and experience proves that its use with classes brings excellent results. The author succeeds in setting in relief the chief figures and movements in each era. He is open, however, to the charge of having favorite subjects; note, for example, his disproportionately full treatment of the two topics, the rise of the drama, and the rise of prose fiction. Professor Simonds' book is rich in suggestions for study. Herein is one of its valuable features.

For those who wish a guide to the aesthetic appreciation of English literature, in its historical development, Moody and Lovett's history is probably to be recommended the most highly of all. Professor Moody is himself a writer of prose and verse of a high order, and he and his collaborator bring to their survey keen appreciation, sound scholarship, and unusual critical judgment. They know how to utilize space to excellent advantage; they keep clear proportions; and they are brilliant in their characterizations of individual authors and their works. To these collaborators, literature is a vital and fluid thing, a thing never to be cheapened or dulled. So vivid and so finished is their style that one has the feeling that their brief history is itself literature of no mean order. The impression they leave with the reader is never confused, nor yet in any feature out of perspective. The only fear to be expressed concerning this book is that, with such brilliant criticism of what they study ready at hand, students may be tempted to develop little personal criticism of their own.

Many teachers holding this latter fear, namely that the student may rely too much for his critical ideas on the historical textbook placed in his hands, now turn with favor to the recently published "Lives of Great English Authors" by Hinchman and Gummere (Houghton, Mifflin & Company). This book may be used to undoubted

advantage, especially when accompanied by outlines giving the historical setting, and thus all risk of "sign-board" criticism avoided. On the other hand, a few feel that this method may perhaps over-emphasize the biographical. Biography is interesting and easily taught; but it is not equally needed in all cases. It is when the writer's life is directly related to his work, or serves to illuminate the latter, that it becomes essential. It is not to be stressed at the expense of attention to large movements, or of leaving literature unrelated to history.

From the foregoing discussion, which has included only a few of the many textbooks now in the field, it is obvious that wide enough choice in books is now offered for each teacher to find what best suits his individual bent and methods. It is clear, too, that the makers of these historical guides are awake to the importance of stimulating the literary enthusiasm and the mental life of the student. Probably any of the six books named would bring about one of the chief things to be desired from the kind of book under discussion—namely the leaving with the student of a realizing sense of the magnitude and power of our literary inheritance. The dullest student using such a book learns that the unity of our national literature is not that of a library but of a living organism. He comes to appreciate genetic connections; to realize that it is impossible to understand completely any one masterpiece or any one period without understanding something of all the rest. In the case of none of the brief histories cited is the chief aim of the author scholarship only, as indeed it should not be, in textbooks intended for the average student.

The historian of English literature has a fascinating theme with which to deal, the imaginative life of a great race. It is little wonder that new books intended to tell the story of this life, in its main lines of development, are constantly being put forth in constantly varied forms.

NEBRASKA HIGH-SCHOOL DEBATING LEAGUE

M. M. Fogg, President

The second annual state championship debate of the Nebraska High-School Debating League will be held at the University on Friday evening, May 14. The contestants will be the eleven best debaters—representatives of the schools which won the championship of the eleven district leagues—picked from the twelve members of the forty-seven school teams.

The championship in all except three of the eleven districts has been decided. Ravenna, which won from Ord, met Loup City on April 30 for the final debate in the West-Central District; Auburn and Wymore compete on May 7, to settle the first honors in the Southeastern District. The district championships now determined are:

Eastern District .....Wahoo
East-Central District.....University Place
Central District .....Osceola
Northern District .....Atkinson
North-Central District.....Pierce
Southern District .....Hebron
Southwestern District .....Beaver City

In the state championship debate, each speaker who has not already changed sides in the district debates, must argue on the side opposite to that on which his team debated when it won the district championship.

The following district league debates, in addition to the sixteen reported in the March "University Journal," have been held:

Central District League

Osceola-Geneva

At Osceola, April 23. Won by Osceola, two to one. Judges: Judge R. C. Roper, David City; Benjamin G. Sinclair, University of Nebraska; R. A. Van Orsdel, College of Law, University of Nebraska.

Eastern District League.

Plattsmouth-Blair

At Plattsmouth, April 8. Won by Blair, two to one. Judges: Supt. J. H. Beveridge, Council Bluffs; Principal Ellis W. Graff, Omaha; Supt. N. M. Graham, South Omaha.

Wahoo-Fremont

At Fremont, April 9. Won by Wahoo, two to one. Judges: Professor H. W. Caldwell, University of Nebraska; Professor G. W. A. Luckey, University of Nebraska; Professor Edwin Maxey, University of Nebraska.

Wahoo-Blair

At Wahoo, April 23. Won by Wahoo, unanimously. Judges: Professor E. B. Conant, University of Nebraska; Dean Charles Fordyce, University of Nebraska; Professor Guernsey Jones, University of Nebraska.

East-Central District League

Syracuse-University Place

At Syracuse, March 19. Won by University Place, unanimously. Judges: Supt. Thomas Barackman, Dunbar; Supt. B. S. Hayden, Palmyra; Benjamin G. Sinclair, University of Nebraska.

North-Central District League

Albion-Pierce

At Albion, March 27. Won by Pierce, unanimously. Judges: Supt. Dell D. Gibson, Plainview; President Jacquitte, Gates Academy, Neligh; Professor Edwin Maxey, University of Nebraska.

Southeastern District League.

Pawnee City-Auburn

At Auburn, April 9. Won by Auburn, two to one. Judges: Professor M. M. Fogg, University of Nebraska; Supt. E. E. Lackey, Syracuse; Supt. George E. Martin, Nebraska City.

Tecumseh-Humboldt

At Humboldt, April 15. Won by Humboldt, unanimously. Judges: R. C. James, Esq., Falls City; W. D. Redmond, Deputy State Superintendent Public Instruction, Lincoln; Supt. W. H. Sinons, Table Rock.

The second annual "Bulletin" of the League will be published the middle of May. It will contain an account of each League contest and of the state championship debate; the question for the 1909-1910 league debates and a selected list of reference-books and articles on it; the amended constitution; and the list of schools which are members. Copies, which will be sold at twenty-five cents, may be ordered of the president or secretary-treasurer, Supt. H. Clyde Filley, of Albion.

UNIVERSITY EXTENSION WORK

Instruction by Lecture.

Instruction by lectures is one of the most important features of University Extension work. In New York City courses of free lectures under the direction of the board of education have been exceptionally successful. For the school year 1906-7, 500 men and women through 5,500 lectures uttered their messages of uplift, of information, of inspiration and of direction in 160 different places throughout the city to an audience that reached a total of over 1,100,000. In 1907-8 the audiences numbered over 1,500,000, and the work cost the city $150,000.

While the University of Nebraska has no fund for a state wide free lecture course, it is able to offer, through the University Extension Department, first class musical and lecture talent at the most reasonable terms ever made to the people of the state. The Extension Department will endeavor to place a lecture course of three, five or seven numbers in as many of the 500 villages, towns and cities of the commonwealth during the year as possible. At the present writing we can give only a partial list of our talent. In a future number of this Journal we shall give a complete list of the lecture and musical talent that may be secured through the Extension Department of the University of Nebraska. At this time we are pleased to announce the following lecturers and their subjects:

Chancellor Samuel Avery, Ph. D.
(1) A Comparison of German and American Schools.
(2) Agriculture as Related to Human Progress.
(3) The University and the State.

Grove E. Barber, A. M., Head Professor of Roman History and Literature.
(1) Do Our Schools Pay?
(2) National Characteristics of the Roman People.
(3) Rome, the Eternal City.

N. A. Bengtson, A. M., Instructor in Geography and Economic Geology.
(1) The Missouri-Mississippi Highway (Illustrated).
(2) Essentials of Geography Teaching.
(3) Laboratory Instruction in Geography.

Charles E. Bessey, Ph. D., LL. D., Head Dean.
(1) Things Worth While.
(2) Some of the Wonders of Plant Life.

Lawrence Bruner, B. Sc., Head Professor of Entomololy and Acting State Entomologist.
(1) Things Worth Knowing About Insects.
(2) Something About Nebraska Birds.
(3) A Naturalist in Argentina.

George R. Chatburn, A. M., Professor of Applied Mechanics and Machine Design.
(1) Better Roads for Nebraska. ((Illustrated).
(2) The San Francisco Earthquake and Fire. (Illustrated.)
(3) The Pitfalls of University Students.

George E. Condra, Ph. D., Professor of Geography and Economic Geology.
(1) Nebraska's Greatest Products.
(2) The Conservation of State and National Resources.
(3) Field Work and Excursions in Geography Teaching.

Ellery W. Davis, Ph. D., Dean of the College of Science and Arts and Head Profesosr of Mathematics.
(1) A Coming Aristocracy.

A. E. Davisson, A. B., Head Professor of Agricultural Education and Principal of the School of Agriculture.
(1) The Ultimate Objects of Education.
(2) Agricultural Education.
(3) A Perfect Manhood.

Fred M. Fling, Ph. D., Head Professor of European History.
(1) Education and Life.
(2) Imperial Rome.

M. M. Fogg, A. M., Professor of Rhetoric.
(1) Abraham Lincoln.
(2) The Importance of Debating and Public Discussion in our Public School System.

Charles Fordyce, Ph. D., Dean of the Teachers' College and Head Professor of the History, Theory and Practice of Teaching.
(1) The Irrepressible Boy and His Teachers.
(2) American Fidgetiness.
(3) The Forces that Determine Destiny.

Laurence Fossler, A. M., Head Professor of the Germanic Languages and Literature.
(1) Then and Now.
(2) Life's School Masters.
(3) Germany and the Germans.

Ferdinand C. French, Ph. D., Professor of Philosophy.
(1) Culture and Democracy.
(2) Wealth, Work and Worth.
(3) Play. Its Meaning and Value in Life.

Paul H. Grummann, A. M., Professor of Modern Literature and Director University Summer School.
(1) The Ideal of Efficiency in Education.
(2) Manual and Industrial Training.
(3) Germanic Myths and Superstitions.

Harriet Alice Howell, A. M., Adjunct Professor of Rhetoric.
Available for a limited number of Reading Entertainments.

Archibald L. Haecker, B. Sc. A., Professor of Dairy Husbandry.
(1) Great Wastes in American Agriculture.
(2) Cream Production in Nebraska.

J. C. Knode, Scholar in Department of English Literature.
(1) Growth and Growers.

James T. Lees, Ph. D., Head Professor of Greek History and Literature.
(1) A Visit to Athens. ((Illustrated.)
(2) A Tour Through Greece. (Illustrated.)
(3) In Sunny Sicily. (Illustrated.)

G. W. A. Luckey, Ph. D., Head Professor of History and Science of Education.
(1) Education Through Motor Activity.
(2) The Home and the School.
(3) The Organized Church.

Rufus A. Lyman, A.M., M.D., Professor of Pharmacology and Director of the School of Pharmacy.
(1) Alcohol as a Factor in the Production and Spread of Disease.
(2) The Experimental Evidence Which Explains the Action of the Habit-Producting Drugs.
(3) Secret Avenues Through Which Drug Habits are Acquired.

Clark E. Persinger, A. M., Assistant Professor of American History.
(1) Life and Times of Lincoln. (Illutsrated.)

A. A. Reed, A. B., Inspector of Accredited Schools and Professor of Secondary Education.
(1) What Next?
(2) Being a Boy.
(3) The Essenitals in Teaching Reading.

Frederick A. Stuff, A. M., Associate Professor of the English Language and Literature.
(1) The Boy and His Books.
(2) The Art of Reading Fiction.
(3) Our Public Schools—The Hope of the Nation.

W. G. L. Taylor, A. B., LL. B., Head Professor of Political Economy and Commerce.
(1) The Evolution of the World's Commerce.
(2) The Evolution of Money Legislation.
(3) The Evolution of Political Thought.

Henry B. Ward, Ph. D., Dean of the College of Medicine.
(1) Public Health and Public Schools.
(2) Fisherman's Luck in Alaska.
(3) The Rat, the Flea and the Great Plagues.

Hutton Webster, Ph. D., Professor of Sociology and Anthropology.
(1) Monuments of Pre-historic People.
(2) Primitive Secret Societies.
(3) Savage Art.

Robert H. Wolcott, A. M., M. D., Professor of Anatomy.
(1) The Animal Life of Nebraska.
(2) The Body and the Effect of Its Environment.

University Quartet

The University quartet is an organization made up of experienced musicians, all of its members having been in musical work for a number of years. Besides rendering programs notable for their high standard of excellence musically, the quartet gives a clever little musical farce, entitled, "The Country School-room," as a pleasing climax to an evening's entertainment.

For information relative to dates and terms for this talent or any question concerning University Extension work, write J. L. McBrien, Director, Station A, Lincoln, Nebraska.

THE MAY MUSICAL FESTIVAL.

Lincoln, Nebr., May 17-18.

Many European and American musical centers have established the institution of a May Festival. Lincoln, with its University Chorus and the School of Music has, for some years, made an attempt to hold such a festival, and the memory of former festivals at which such organizations as the Thomas Orchestra of Chicago have been heard in conjunction with famous soloists and well-trained choruses should stimulate many to an active propaganda for the firm establishment of the institution.

No undertaking that appeals to the support of Nebraskans is worthier than this one. If we are to foster the best spiritual ideals, the best music that has been composed should become accessible at least once a year to our student population, our teachers and our citizens generally.

In the past notable sacrifices have been made by individuals in order to secure this advantage to the state. These heroic efforts have not met with the proper popular response, possibly because too few have assumed direct responsibility for them. It was felt that some strong organization should assume direction of the undertaking and hence the Lincoln Commercial Club was asked to interest itself. The officers of the club readily grasped the importance of the matter and have assumed the responsibility for this year's festival. It is a matter now for the citizens of the state, and more particularly of Lincoln, to decide whether they wish to make the festival a permanent institution, by actively supporting it in every possible way.

The management has been so fortunate as to secure the Minneapolis Symphony Orchestra for the present year. Under the able direction of Mr. Oberhofer, this orchestra has risen to an excellence that has commanded the attention of musicians everywhere. The programs which are appended, have been arranged with rare judgment. The symphony concert will offer numbers sufficiently difficult and severe to satisfy those who are fully initiated into this type of music. Due attention has been paid to the selection of compositions so well known that they will make both an artistic and a popular appeal. The Children's Concert, at which short masterpieces will be performed is a particularly happy idea.

Since arrangements could not be made in time, the University Chorus will not take part in the festival this year. It is hoped, however, that the coming festival will be a success so unqualified that plans may be made for the annual participation of the chorus.

The Program.

May 17th, 2:30 P. M.

Children's Concert.

Children's Classics. (Short Masterpieces.)

May 17th, 8:15 P. M.

Symphony Concert:—Soloists: Miss Louise Ormsby, soprano; Mr. Arthur Middleton, bass; Mr. Richard Czerwonky, violinist.

PROGRAM

1. Overture, "Le Carneval Romain".....Berlioz
2. Bass Solo, Prologue to Pagliacci .....Leoncavallo
   Mr. Middleton
3. Symphony No. 4 in A (The "Italian") .....Mendelssohn
4. Soprano Solo: Louise's Aria from "Roman Musicale" ....."Louise" Charpentier
   Miss Ormsby
5. Capriccio Espangnol .....Rimsky-Korsakow
6. Violin Solo: Concerto in G minor.....Bruch
   Mr. Czerwonky
7. Rhapsodie Hongroise No. 2.....Liszt
   With original Harp Cadenza by Henry G. Williams.

May 18th. 2:30 P. M.

Popular Concert—Soloists: Miss Esther May Plumb, contralto; Mr. Garnett Hedge, tenor; Mr. Carlo Fischer, cellist.

PROGRAM

1. Parting March from "Leonore" Symphony .....Raff
2. Overture Oberon.....Weber
3. Tenor Solo: Arioso from Pagliacci "Vests la giubba".....Leoncavalle
   Mr. Hedge
4. Suite "Wand of Youth" No. 1.....Elgar
5. Cello solo: "Variations Symphoniques" .....Boellman
   Mr. Fischer

6. Symphonic Poem "Danse Maccabre".....
.....Saint-Saens
Incidental solo, Mr. Czerwonky
7. Contralto Solo: Aria "O Mio Fernando" from the opera "La Favorita"....Donizetti
Miss Plumb
8. Bacchanale from Tannhaeuser.....Wagner
(Parisian Version)

May 18th, 8:15 P. M.

Operatic Concert—Soloists: Miss Louise Ormsby, soprano; Miss Esther May Plumb, contralto; Mr. Garnett Hedge, tenor; Mr. Arthur Middleton, bass; Mr. Carlo Fischer, cellist; Mr. Salvatore Nirella, clarinetist.

PROGRAM

1. Vorspiel to Meistersinger.....Wagner
2. Bass Solo: Aria from "Queen of Sheba" .....Gounod
("She Alone Charmeth My Sadness")
Mr. Middleton
3. Polonaise from Mignon.....Thomas
4. Tenor Solo: Rudolfo's Song from "La Boheme" .....Puccini
Mr. Hedge
5. Violin Solo: Meditation from "Thais"....
.....Massenet
6. Duett from "Don Juan" "La Cidarem la mano" .....Mozart
Miss Ormsby and Mr. Middleton .
7. Song of the Rhinedaughters (from "Goetterdaemmerung"- .....Wagner
8. Trio: Finale from "Faust".....Gounod
Miss Ormsby, Messrs. Hedge and Middleton
9. Scenes Alsaciennes: "Sous les Tilleuls" (Under the Lindens) .....Massenet
Cello, Mr. Fischer; Clarinet, Mr. Nirella
10. Vocal Quartet from Rigoletto.....Verdi
Misses Ormsby and Plumb
Messrs. Hedge and Middelton
11. Overture Tannhaeuser .....Wagner

SUMMER SESSION 1909

P. H. Grummann, Director

It is hoped that the summer session will attract graduate students in increasing numbers. The law now prescribes that high school teachers shall be college graduates, and it is clear that the future will bring increased requirements. The best positions clearly will go with increasing frequency to teachers who have developed along the line of their specially beyond the bachelor's degree.

Strong students who have satisfied their teachers of their ability to carry on work independently will, in accordance with a ruling made at the last meeting of the Board of Regents, be able to secure the A. M. degree in a reasonable number of summer sessions. It should be clearly understood that this action in no manner abbreviates the scholastic requirements, but simply makes it possible for men and women to do graduate work toward an advanced degree without interrupting their work as teachers. In order that the action of the Board of Regents may not be misunderstood, their action is appended: "By concession, approved students may be accounted to have fulfilled the requirements of residence for the degree of Master of Arts on completion of eighteen hours work, registered for in the summer sessions of the University."

A special rate of $3.50 per week for board and rooms in the Home Economics Hall at the University Farm is offered for the summer session. The quarters thus provided are almost ideal for summer residence. The hall is within easy access of rapid transit lines which connect almost directly with the University Campus.

Students who attend the Division of Teachers of Rural Schools will register in Agricultural Hall at the University Farm. The University Farm is conveniently reached by street cars labelled "State Farm." Transfers to this line may be obtained from cars running from the various railroad stations. Students who desire information before they go to the University Farm, should apply to the registrar, whose office is in the Administration building on the University Campus.

On account of serious illness during the college year, Associate Professor Sanford, upon the advice of his physician, has decided to give up his work in the summer session. Professor Grove E. Barber has kindly consented to give up plans which he had made for the summer in order to carry on the work announced under the Latin Department. All courses will be given with the exception of Roman History. Professor Barber will substitute for this a course in Cicero's Orations. Such orations will be selected as accommodate the needs of the class. The character of the instruction will be adapted to the purpose for which the students take the subject. If the class is composed of teachers, the reading will be accompanied by lectures on methods of teaching Latin. Five hours attendance. Two hours credit.

Course 5 will be expanded to include Roman antiquities with special reference to private life.

Attention will be paid to dress, ornaments, household furniture, kitchen utensils, vases, houses, wall decorations, sculpture and various articles found in Pompeii and Herculaneum. Lectures will be illustrated with lantern views. Attendance and credit as announced in the Bulletin.

Attention is called to the fact that prospective students of the University may, with profit, begin their work in the summer session. Frequently this is a great advantage. Students who are deficient in entrance requirements, may thus make up their delinquency and enter regularly. When students desire to shorten their college course, frequently a summer session before the regular freshman year is of decided advantage. The fact that students can enter the University at a time when their former high school teachers are at the University for summer study is also a decided advantage, for these teachers can give them expert advice on many important questions.

A slight error has crept into the announcement of Course 1 in General Psychology. Two hours credit attach to this course instead of five hours as published.

Course 3 in American History (Secession, Civil War, and Reconstruction) will be offered by Professor Harding instead of Professor Caldwell. Professor Caldwell, however, will be in residence during the session, and will be glad to direct graduate study in American History.

One of the most interesting innovations of the coming summer session is the vacation school for boys above the age of thirteen. The work which will consist of manual training and stock judging, will be given at the University Farm from June 11 till July 23. The child labor law makes it particularly desirable that some opportunity be offered to keep boys profitably occupied during the summer. Few schools in Nebraska are properly equipped to offer the important training of the shops and the stock farm, and hence the University has decided to offer its plant for this purpose. Boys who do not reside in Lincoln may obtain quarters in the Stock Judging Pavillion at a nominal cost. Board is offered at the Home Economics Building at $3.00 per week. Aside from this there is a registration fee of $6.00 and a laboratory fee of $2.00 in the Manual Training Course. Since the quarters are limited, applications for quarters should be made to the Director of the Summer Session at once.

Professor Fling will be in residence during the summer session, and will supervise graduate work in European History. Students who wish to plan work with him should communicate with him at their earliest convenience.

Prof. Sandiford, of the Teachers' College, Columbia University, will direct the practice work in the summer School, U. of N.

ENGLISH LANGUAGE AND LITERATURE

(See Summer Session Bulletin, 1909, pp. 32-33.)

Professional State Certificate—Usually the ordinary course of study under the conditions of this announcement is selected or rejected upon the application of the economic test. Probably the question most frequently raised as the eyes of a great number of wide-awake, ambitious teachers scan the Summer Session Bulletins now scattered broadcast over the country, might be voiced after this manner: "Will this course enable me to accomplish my plan, and at the same time conserve my energy?" The final decision upon such a question must rest with the student. Some hints may be given, however, which will enable a wise decision.

If a teacher is to complete his work of preparation for the state examination in English Literature it will be wise to consider taking a course planned to meet his personal needs. In this course he will find opportunity to study the elements and related facts of English and American literature presented in a clear and rapid survey. He will be enabled to see the subject from a new vantage ground. His imagination will be quickened and developed. His memory will be strengthened. He will find the confidence which knowledge brings. More than that, if he can concentrate his forces, he will find the spirit of his subject. This will vitalize his knowledge and prepare him to endure with hardness the test which must be applied before the coveted state credential of proficiency will be forthcoming.

The individual needs of the student will be considered. Each one interested will be carefully advised and guarded against a loss of time and disappointment. The amount of work to be done will depend, in part, upon the general preparation of the candidate.

English Grammar.—This course will be conducted by one who knows the needs and difficulties of the teachers who present this important subject to high school students. The knowledge and pedagogy of the subject requisite for successful teaching will be wisely presented. The course is also open to students who wish to do advanced work in this field. Special stress will be put upon the study of clear and coherent expression of thoughts in sentence forms.

Teachers' Course.—Any genuine Teachers' Course will stand the most rigid economic test applied in the selection of courses. Such a course provides for the conservation of the teachers' energy throughout the entire year. The course offered to teachers of English language and literature has been carefully planned. The teacher will be given personal direction in finding knowledge of the field. He will be enabled to find and use the secret springs of the consciousness of the one to whom the subject is to be taught in the grammar and high school grades.

The course as outlined is not a mere "grind." There are large possibilities in it for individual culture. It is confidently expected that each teacher who gives himself to the course will return to his duties in September with new teaching vigor. He will find joy in his work. He will teach with knowledge, conviction and power.

Shakespeare.—There are times when it is wise to lay aside the economic test in the selection of courses of study when it does not include sound notions of individual culture. The real teacher early learns that he cannot live by bread alone. He secretly discovers that he must find soul strength if he is to do his part in the upbuilding of society without becoming peevish and sordid in meeting the issues of life. If from time to time he can find himself renewed in his faith in simplicity and repose, and inspired by the true greatness of self-mastery, his usefulness to society will widen with each year of service. There are many who find in the study of Shakespeare just such a toning of the finer forces of the imagination.

Two great dramas, Romeo and Juliet, and Coriolanus representing different periods of Shakespeare's dramatic effort, have been selected for intensive study. Both present social ideals and furnish material for the sessions study of powerful struggles with environment and heredity. The utter need of the wisdom of life that controls and guides impulse is nowhere more tragically revealed.

This course is open to graduates, undergraduates and teachers. Special attention will be given to those interested in the investigation of literary problems and to those who are presenting Shakespeare in the high school.

Address Director P. H. Grummann, Station A, Lincoln, for particulars regarding the Summer School of the University of Nebraska.

ALUMNI TIDINGS

UNIVERSITY CLUBS

Mr. T. F. A. Williams, president of the Alumni Association, has appointed a committee consisting of Laurence Fossler, H. W. Caldwell, L. W. Chase, Miss Alice B. Ensign, and A. A. Reed, to organize alumni clubs. Plans have been formulated and are being pushed to that end, and it is hoped to have a club in every place where a small number of alumni or former students can be found. All who are willing to assist should notify the secretary, A. A. Reed, at once, and suggestions as to procedure will be sent them.

KANSAS CITY CLUB

A. E. Henry, 1908, Secretary of the University of Nebraska Club, Kansas City, Mo., writes as follows concerning the Alumni at that place:

"The University of Nebraska Club of Kansas City was organized in January, 1908, largely through the efforts of Messrs. Roscoe J. Anderson, 1904, and Oliver L. Wroughton, 1905. There were twelve charter members, and the membership has, during the year, increased to thirty. The membership is not restricted to graduates, but includes all men who were at any time in regular attendance at the University. Every month or six weeks throughout the year, the members of the Club dined together, and on several occasions met at smokers. On one occasion the members brought their wives to dinner, the bachelors taking care of the few Nebraska 'Co-eds' of Kansas City.

We do not believe that the success of our organization is attributable to our latitude, longitude, climate or topography, but solely to the spirit of fraternity which prevails among Nebraska University men. And we further believe that this spirit of fraternity will insure the success of all such organizations as ours, no matter in what part of the world located."

EARLY ALUMNI

W. H. Snell, '73, has retired from the position of Judge of the Superior Court in Washington, and has gone to Europe for a season of rest and recreation.

Warren Loree, '80, is instructor in Mathematics in the high school at Long Beach, Cal.

H. K. Wolfe, '80, has been appointed Head Professor of Philosophy in the University.

Herbert W. Olmstead, '84, is employed in the Bureau of Pensions, Washington, D. C. Mr. Olmstead is a member of the Bar of the Supreme Court of the District of Columbia.

Hans C. Peterson '90, who is head of the department of English, Crane Technical High School, Chicago, Ill., lives at 1840 Lexington St.

E. P. Brown, '92, made a splendid record in the Senate, reflecting honor upon Lancaster County.

Messrs. C. M. Skiles, '92, and R. M. Harris, '97, are partners at law in David City.

Senator E. J. Burkett, '93, '95, writes as follows concerning University men in Washington: "The old institution is taking a splendid part in the world's work. There are many of her boys here in Washington in public service. I have met forty or fifty of them and they are all doing good work and upholding the honor and credit of their alma mater."

William F. Wolfe, '93, is occupied as a merchant at Sedalia, Mo.

Mary Grace Edwards, '94, was recently married to George Marx and now resides at Wheatland, Cal.

E. W. Brown, Law '95, was able once again to render aid to his Alma Mater as a member of the House from Lancaster County.

W. H. H. Forsyth, '95, is pastor of the First M. E. Church, Everett, Wash.

Eugene B. Sherman, '95, who has recently retired from the superintendency of the State Industrial School at Kearney, is with the Shaw Lumber Co., Boise, Idaho.

Emma Boose Tucker, '96, who took her M. D. degree at the Northwestern University, Woman's Medical School, is now Physician of the American Board of Commissioners for Foreign Missions, Pangkiachwang, Shantung, China.

V. E. Wilson, '96, is receiving credit for the passage of the "daylight" saloon bill.

Ivan W. Goodner, '97, is practicing law at 204 Central Bldg., Seattle, Wash.

A. S. Johnson, '97, now of the University of Texas, has accepted a position as an instructor in the University of Chicago during the summer quarter session.

Dr. Edward Banghart, '98, now at Manley, has decided to locate at David City. Mrs. Banghart was Miss Hattie Packard.

W. S. Heitzman, '98, is located at Topeka, Kansas. He is still in the employ of Ginn & Co.

Fred B. Humphrey, '98, acquitted himself with credit as Representative from Lancaster County, being especially active and influential in all matters affecting education in general and the University in particular.

Geo. Kindler, '98, has been re-elected at Seward with an increase of $100 salary.

The firm of Walsh & Morrison, Kansas City, Mo., has been dissolved, and E. R. Morrison, '98, is continuing in the practice of law at 901 Scarritt Bldg.

Miss Alice Bross Newell, '98, is living at Franklin, Nebr.

H. B. Stewart, '98, is engaged in the ranching business at Cody, Wyo.

H. O. Sutton, '98, has installed over $1,000 worth of physical apparatus at the Kearney State Normal this year. Mr. Sutton has reason to feel proud of his laboratory.

R. M. Thomson, '98, former Senator, is now cashier of the Ravenna State Bank.

Gertrude Gardner, '99, of the Kearney State Normal School, has organized a Latin society which meets monthly for the pupose of getting a more practical education in Latin.

H. Halderson, '99, is practicing law at Newman Grove, Nebr.

Alma Hosic, '99, has organized a German society. Miss Hosic is head of the German Department in the Kearney State Normal School.

H. A. Meier, '99, has written an interesting letter to each member of the class, in preparation for the reunion and decennial celebration Alumni Day. In conclusion he says: "I cannot close without wishing you good fortune and inviting you to come to the commencement exercises in June this year. Come back to your Alma Mater,

and let her know that you appreciate the hopes she implanted in your breast. Come back to the Old Uni. and drink anew from the Fountain of Youth. But whether you come or not, write me a letter—a good one, a long one, and enclose the assessment, and those of us at Lincoln will join hands with you to make the Tenth Annual Reunion both pleasant and memorable."

Ward K. Newcomb, Law '99, is farming near Deweese, Nebraska.

Roy Schick, '99, is now city attorney at Seward.

J. W. Selden, '99, is practicing law at Tacoma, Wash.

W. P. Thomas, Law '99, was a member of the House from Douglas County, and proved a firm friend of the University.

THE NAUGHTIES

Mrs. Charlotte Hullhorst Hummell, '00, is residing at 3229 R street, Lincoln.

Morrison Liebmann, '00, is manager of Foote, Pierson & Co., manufacturers of scientific and electrical instruments, 2047 Seventh Ave., New York, N. Y.

R. C. Roper, law '00, is secretary-treasurer of a $20,000 library and gymnasium building being built at David City.

Guy W. Barnes, '01, in the Burlington office, lives at 1104 D St., Lincoln.

Edward H. Berg, '01, has moved from Sioux Falls, S. D., to Coeur d'Alene, Idaho, and is still practicing law.

James R. Bixby, '01, is now engineer and instructor in the Colorado State Industrial School for Boys at Golden, Colo.

M. W. Dimery, '01, is secretary of the Conservative Investment Co., of El Reno, Okla.

John T. Dysart, '01, is practicing law, Suite 718, N. Y. Life Bldg., Omaha, Nebr.

Harry McKillup, '01, former county attorney for Seward county, is having a good law practice in Seward.

W. F. McNaughton, '01, is practicing law at Coeur d'Alene, Idaho.

Mrs. Bonnie Forbes Bell, '02, is teaching Latin in the high school at Osceola.

E. A. Boostrom, '02, has declined to remain at Osceola next year as superintendent of schools. He has made an excellent record.

L. Paris Builta, '02, is editor of the Morocco Courier, Morocco, Ind. Mr. Builta is connected with several other business enterprises and is very successful.

Samuel Dexter Clinton, '02, is chief engineer of the Portneuf Marsh Valley Irrigation Co., Downey, Idaho. Mr. Clinton writes that about thirty Nebraska men got together last summer at Twin Falls, Idaho.

L. B. Fuller, law '02, is doing an excellent law business at David City.

Anna L. Jones, '02, was married last August to W. F. Meier, '03, and resides at Spokane, Wash. Mr. and Mrs. Meier made a trip to Nome, Alaska, last fall. The voyage was a stormy one and covered a distance of 3,000 miles each way.

Ethel Masters, '02, is teaching Latin in the Kearney high school.

Superintendent E. L. Tobie, '02, has decided to give up his school work and will enter a theological seminary. It is to be regretted that a man of his success and experience should give up public school work.

G. H. Walker, '02, who recently took his M. D. degree from Minnesota University, is connected with St. Luke's Hospital, St. Paul, Minn.

Rosa M. Boesc, '03, has accepted a position in the eighth grade in Lincoln.

Warren B. Catlin, '03, is this year a candidate for Ph. D. in Columbia University, where he has held a fellowship in Economics.

E. D. Hodge, '03, is engaged in the practice of law at Tacoma, Wash.

John A. Patterson, '03, is practicing law at Central City, Nebr.

Roy L. Pinkerton, '03, is studying medicine at Cincinnati, Ohio.

J. A. Sargent, '03, addressed the Engineers' Club recently. Mr. Sargent, although receiving his degree in 1903, really left the University in 1899, just before the close of his senior year. He went to Cuba and for the past nine years has been engaged in government and railroad work in the West Indies. In that time he has acquired a lot of valuable experience and a reputation as a successful engineer. Mr. Sargent came to New York City on the resumption of an independent government by the Cubans several months ago.

Osher Schlaifer, '03, is Superintendent of Schools at Lake Preston, So. Dak.

Elva L. Sly, '03, is general secretary of the Y. W. C. A., University of Arkansas, Fayetteville, Ark.

R. A. Bickford, '04, has resigned his position with Rudge & Guenzel and has been made business manager of the Sunlight Sanitarium, Lincoln.

J. H. Broady, '04, is editor of the Nebraska Synoptical Digest, 520 Burr Blk., Lincoln, Nebr. The Digest, a three-volume work, is now completed and will be placed on the market this spring.

Emory R. Buckner, '04, who has been Assistant United States District Attorney for the Southern District of New York, since January, 1908, has had in charge the taking of evidence in the government's $1,000,000 case against the Sugar Trust.

E. L. Culver, '04, is practicing law at Tacoma, Wash.

L. M. Huntington, '04, is an engineer in charge of construction, Marx & Windsor, Guantanamo, Cuba.

William L. Kuser, '04, writes that he has lived in Iowa since his graduation but still has fond recollections of the U-U-U-N-I, VER-VER-VER-SI-TY, N-E-BRAS-KA. Mr. Kuser is superintendent of the Iowa State Industrial School for Boys, Eldora, Iowa.

Margaret V. Maguire, '04, has succeeded E. E. York as teacher of science in the Superior High School.

Ernest F. Monroe, law '04, A. B. '07, has been elected superintendent of the Shelton schools.

Alva Remster, law '04, is engaged in the real estate business at Aberdeen, S. D.

Helen C. Streeter, '04, gives her address as Mrs. L. M. Huntington, 251 E. 65th St., Chicago, Ill. Mr. Huntington is in the government employ in Cuba.

Rose L. Wirth, '04, is teaching in the Benton High School, South St. Joseph, Mo.

Fred R. Wright, '04, is a lawyer at Spokane, Wash.

Mortimer J. Brown, '05, is Professor of Chem-

istry, Chihli Provincial Industrial College, Tien Tsin, North China.

Frances Cutter, '05, is teaching in the high school at University Place. Miss Cutter was principal of Weeping Water High School last year.

Elmer Davis, '05, is in the Union Pacific Division Engineer's office in Denver.

Leta E. Adams, '06, is Librarian of the State Normal School at Spearfish, So. Dak.

C. R. Burkey, '06, is at Jerome, Idaho, where he is Chief Draftsman for the Twin Falls, North Side Land & Water Co.

Prof W. H. Cox, of Wesleyan University, who took his master's degree at this University in 1906, has recently been given a fellowship in philosophy at Harvard.

Thomas Davis, '06, chief engineer of the Cleveland Crane & Engineering Company, recently secured for his company the contract for four large unloading cranes for use on the Panama Canal.

William H. Henney, '06, is a practising physician and surgeon at Thedford, Nebr.

Clarence A. Johnson, '06, is an assistant professor in the University of Kansas, at Lawrence, Kans.

S. Katharine Kimmel, '06, is manager of the Western Match Co., Lincoln, Nebr.

Martin L. Kimmel, '06, has given up his work as salesman for the Western Match Co., and and is now practicing law at Omaha.

E. Don Skeen, '06, is surgeon of the Gunn Queally Coal Co., Gunn, Wyo.

Vivan L. Strickland, '06, who is now Superintendent of Schools at Bloomington, has accepted a similar position for next year at Nelson.

Mrs. Scena Hansen Curtis, '07, is endeavoring to organize a University of Nebraska Club at Minden, Nebr. Mr. Curtis is Superintendent of Schools of Kearney County.

Joseph Dickinson, '07, is reporting for the Daily Tribune at Fremont.

Delbert D. Gibson, '07, has been elected superintendent of the Lyons schools for next year.

Vinda Hudson, '07, has been elected assistant principal of the high school, Fairmont, Nebr.

W. G. Jenkins, '07, who has been in Cuba for the past two years, has accepted a position as engineer on the government irrigation project in the San Luis Valley, Colorado.

Theo. F. Mueller, '07, is with the General Electric Co., Chicago, Ill.

Rena Osborne, '07, is teaching Latin and German at Ravenna.

F. J. Pipal, '07, is principal of schools at Benkelman, Nebr.

Miss Bertha Potter, 07, is teaching mathematics in the high school at Seward.

Carl Denton Slaughter, '07, was married April 7th, to Miss Constance M. King of Salmon, Idaho.

Fred Upson, '07, at present a student at the University of Chicago, has recently been awarded the Swift fellowship of $520.

Chas. E. Allen, '08, has established a law practice at 51 Haller Bldg., Seattle, Wash.

Albert E. Beatty, '08, is a special apprentice, U. P. R. R.. 3806 Gilpin St., Denver, Colorado.

E. G. Bordner, '08, is with the Nye, Schneider, Fowler Co., Fremont, Nebr.

Nell Bridenbaugh, '08, is teaching in the Bryant school, Lincoln.

Roy C. Burt, '08, is in the telephone business at Albion, Nebr.

Delilah R. Charlton, '08, is at her home at Loup City.

Charles Clark, '08, is traveling out of Ravenna for his father's creamery.

Keo Currie, '08, has been teaching this year in the Fairbury High School.

Cooper M. Dunn, '08, is with the Swain Nelson & Sons Co., 941 Marquette Bldg., Chicago, Ill.

Louise Eastman, '08, is teaching in the public schools at Moline, Ill.

Zelia Griffin, '08, is supervising music in the public schools of Holdrege, Nebr.

Josiah B. Grinnell, '08, is a practicing physician at Wood River, Nebr.

Joseph J. Hompes, '08, has opened an office as an occulist at 207 Richards Blk., Lincoln.

Mr. R. L. Kokjer, '08, is in the employ of the Union Pacific Railway at Cheyenne, Wyo.

Charles Lieber, '08, is a physician of the Swedish Mission Hospital, Omaha.

Brownlow B. Miller, '08, is a practicing physician at Tabor, Iowa.

M. A. Mills, '08, is studying law at Columbia.

Mr. J. A. Monick, '08, is in the Union Pacific motor car works at Omaha.

A. R. Moore, '08, is teaching at Goldfield, Nev.

Joseph A. Murphy, '08, is engaged in the grain business in Omaha, Nebr.

J. F. Premer, '08, is practicing medicine at Bartley, Nebr.

Robert A. Spaits, '08, is practicing law at 324 Mills Bldg., San Francisco, Cal.

Mr. Geo. L. Sullivan, '08, is an instructor in mechanical engineering at the University of Colorado, at Boulder.

John W. Thomas, '08, is "ranching" at Kimbro, So. Dak.

Frank R. Vosacek, '08, is teaching science in the York high school.

Earl E. White, '08, is a civil engineer at Fort Morgan, Colorado.

Mary M. Wilson, '08, is an assistant in the High School at Rushville, Nebr.

Byron E. Yoder, '08, who has been principal of the Fairmont High School since January, has just been elected Superintendent of the Public Schools at Ravenna, Nebraska.

THE HOMEWARD JOURNEY.

Laurence Fossler.

If the reader will recall what I said in my former Traveller's Notes, about the cordiality of the Washington U. of N. contingent, he will not wonder at my hesitancy to retrace my steps with needless haste. Short though my stay in the northwest had been, I had taken very kindly to its ways, to its climate, to its strenuous life Christmas week and no frost, no cold, no mufflers, no heavy overcoats! Roses and ivy and holly in their front yards. A suspicion—only too well founded, as the first half of our January weather proved—of what Nebraska was likely to have up its sleeve, led me, coward that I was, to edge and slink sideways, down to California rather than resolutely retrace my steps and turn eastward. To be sure, this proved a miserable subterfuge, as shufflings and evasions usually are. In fact I found out that I had only made matters worse by my attempt to cut off the dog's tail an inch at a time. California winter weather

cannot, in any case, be regarded as a compromise between that of the Northwest and that of Nebraska.

Drizzle, drizzle, drizzle! Low-hanging, gray, heavy, wet clouds; patches, indeed whole vast stretches of dark, dripping pine and fir forests; a thin (in inches), rather poor soil rolled out over a gravelly or rubble base; scattered villages and small towns; occasional extensive clearings and well-kept farm-steads and orchards—these seem to be the remnant of my mental pictures of the run from Tacoma to Portland. No wonder I turned to my list of Washingtonian euphonic (?) geographical terms (furnished by Mr. Hartman's younger son, Robert, to test my orthoepic accomplishments): Issaquah, Catalamet, Skamakawa, Stilaquamish, Snoqalmie, Nesquamy, Snohomish, Mikilteo, Klikitat, Okenogan, Wahkiakum and many more to bring color into the landscape. But all to no purpose. Ah, here is a little patch at last!

"——— Population 5,500; one-half mile to postoffice; three banks, Chautauqua park in center of city; $20,000 high school, $20,000 grade school, State Normal school, Business College; finest mountain water, unexcelled gravity system, owned by the city." This legend, copied word for word, from a large placard placed over the glass front of a tasty little kiosk on the station platform, showed to the way-farer just what attractions and advantages there were in the neighborhood in addition to the collection of natural products, such as fruits, minerals, woods, grain, etc., with which the kiosk was filled.

Drizzle, drizzle, drizzle! But a conscience void of offense, a good hearty supper in the diner, a peep at the good company in the real end of the sleeper (the smoker), produced their natural, soothing effects, and, like Heine in the Harzreise, "I slept like a god." But "Morn came and went and came, and brought no dry." I needs must believe what story and song tell of the beauties of the Shasta route and about the mountain itself. But his serene highness did not deign to be gazed upon by vulgar eyes that day. He covered himself with an impenetrable, thick veil, cape, cowl, burnoose, whatever you choose to call it. Mist, drizzle, cloud, fog, rain! Yet when, on the morrow, the train rolled into the Sacramento valley, when the vast stretches of vineyards and orchards greeted our eyes, when the beautiful eucalyptus, the pepper trees with their pendulous and picturesque foliage, the stately walnut trees and other characteristic Californian vegetation first appeared, all my woes were forgotten, were as if they had never been.

By noon the train rolled into Berkeley. "Are you a good tramp, a good walker?" my niece (of the Berkeley University library) asked almost as soon as I touched terra firma. "Whether you are or whether you are not, some of us Nebraska-California have arranged a fine Christmas tramp for you, a climb of Mt. Tamalpais and a good dinner on top, to boot. This will limber you up and give you a chance to stretch your limbs after the long ride from Nebraska." Of course I was "game," of course we had a glorious outing, of course the superb view from Tamalpais over Berkeley, Alameda, Oakland, San Francisco, over the Bay, out over the Pacific, or, eastward, over to the snow-capped ranges, was all one could wish for and much more. Prof. D. N. Lehmer, '93, J. N. Shreve, '92, P. L. Hibbard '92, had found it impossible to go along. Lehmer had, I feared—the fear was wholly unfounded and gratuitious—deteriorated into a "book-worm," had allowed his naturally sensitive and beautiful temperament, and his fine appreciation of the beauties of earth and sky and sea to be replaced by (to me and to most of my readers) impossible mathematical ratiocinations. Let me, at once, set myself, Mr. Lehmer and his friends, the older U. of N. generations, right by stating that he is at present engaged upon the investigation of some abstruse mathematical problem, and that, despite that fact, his beautiful home still rings with his inimitable whistle, and that the Nebraska contingent in Berkeley and vicinity makes the Lehmer house their rendezvous, where they are always welcomed by host and hostess and four little hostlets.

But I am digressing from my story. As I said we "tramped it" up Mt. Tamalpais (I will not vouch for your pronunciation of the name). This we did because, as Miss Rachel Corr and others of our little party informed me, there was danger of vertigo on account of the curves in the railway running up. Certain it is that the claim of its being the "Crookedest Railroad in the World" seems well founded, as there are actually in those eight and one-fifth miles of track 281 curves, double knots, triple knots, and what nots! The fact that there are places "where the track parallels itself five times within a distance of 300 feet" lends credence to the claims of the railroad company. This fact also accounts for our reaching the top almost as quickly as the train that began its climb when we did ours.

When we, at the top, had feasted on a suitable Christmas dinner and, with a different organ, on the sights below us, we clambered down the mountain side of the Muir Woods, to take in the beauties of the sequoia grove sheltered there and preserved as a national heir-loom. It would ill become me to set forth the impression my first acquaintance with those stateliest of stately works of Great Mother Nature made upon me. A feeling of awe and veneration is borne down upon the astounded visitor. The short-lived pigmy in the presence of patriarchs and monarchs come down from the days when the earth was young! We could not tear ourselves away despite the fact that night was coming on. And what mattered it? Didn't I have a box of matches that we could, and actually had to, use to light us on our way? Egyptian darkness settled down on us before we reached the train to take us home. The best man, Miss Corr, '98—acted as guide; the tenderfoot with his matches brought up the rear. Bedraggled, footsore, hungry, and weary we at last arrived at Mill Valley, at the train, at the Ferry, at Berkeley, bearing with us the memory of an ideal Christmas tramp.

But alas! These notes are already too voluminous. I must abstain from further recounting my haps and mishaps on the homeward journey. Palo Alto, San Jose, Santa Cruz, Monterey, Pacific Grove, Santa Barbara, Los Angeles, Pasadena, and all the rest, particularly the floral festival on New Year's day at the latter place, and the more than cordial welcome there by friends and acquaintances, old students and others, will always remind me of the most beautiful mid-winter outing a university professor ever had.

Summer Session

Teachers College

University of Nebraska

June 11 :: :: July 24, 1909

Courses Offered:

Agriculture, Anatomy, Botany, Elementary and Advanced. Chemistry, General and Analytical. Education, Child Study, Adolescence, Graduate Seminary in Educational Organization and Administration, Principles and Technique of Instruction, Normal Training, Nature Study, Reading. English Language and Literature, Teachers Course, Shakespeare, Professional Certificate Course, Lectures on Comparative Literature, English Grammar. French, Elementary and Second Year Work. Geology and Geography, Elementary Geology, Industrial Geography Physical Geography, Conference Course in Geography. German, Elementary German, Second Year German, The Modern Novel and Drama. American History, Colonial Period, History of American Political Parties, Secession Civil War and Reconstruction. Latin, Elementary Latin, Caesar, Vergil, Roman History, Roman Archaeology. Manual Training, Course for Teachers and College Students. Open to men and women. Mathematics, Algebra, Trigonometry, Calendar Course 2, 3, or 4. Physical Education for Women. Physics, Teachers' Course, Physical Measurements. Political Science and Sociology, The Ages before History, The Childhood of Man. Psychology, General Psychology, Educational Psychology, Special Studies in Advanced Psychology. Rhetoric, The Teaching of Rhetoric and English Composition, Elementary Rhetoric. Seminary Class in Composition for Teachers of English. Zoology, General Zoology.

Daily Convocations
Eight Courses of Lectures on Scientific and Cultural Subjects
Five Educational Excursions
Observation School—Temple High School

Division for Teachers of Rural Schools

University Farm, June 7 to July 30

Courses Offered:

Agricultural Economics, Agricultural Education, Animal Husbandry, Book-keeping, Botany, Civics, Farm Mechanics, Field Crops, Geography, Grammar, American History, Horticulture, Arithmetic, Algebra, Inductional Geometry, Physics, Physiology, Problems of the Rural School, Round Tables on the Rural School.—Observation Work:—Vacation School in Manual Training and Stock Judging for boys over 14 years of age, June 11 to July 24. Affiliated School of Art.—Affiliated School of Music.

For further information address Director Summer Session, Lincoln, Neb. Station A.